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ABSTRACT

This packet--a teacher's manual, student workbook, and color poster--was designed to accompany a 2-part videotape program. The teacher's manual provides a script of the videotape, and is organized in 2 sections. Part 1, "Kings, Glyphs, Temples and Ball Courts", looks at the written glyph language and the Solar and Ritual calendars of the early Mayans. Carvings from the reign of 18 Rabbits, the 13th King of Copan, are presented along with an explanation of their mythologic content. The significance of the Ball Game, and the Preclassic architecture of Tikal and Yaxchilan are also explored. Part 2, "The Rise and Mysterious Decline of the Maya Kingdoms", looks at the Classic Mayan period. Art focuses on the painted murals at Bonampak and on tomb and temple carvings. The architectural exemplars at Palenque, Uxmal, and Chichen Itza, are examined. The teacher's manual includes a script of the video, suggested lesson plans, a timeline, bibliography, and glossary. The student's "Creative Workbook", includes information sheets, worksheets, activities, maps, diagrams, illustrations, quizzes with answer keys, and Maya syllabic charts. The color poster depicts calendar glyphs with their corresponding deity, exemplars of Mayan stone carvings and architecture, a timeline and map. These materials are appropriate for use with students from grade 5 through adult. (MM)

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Long Count introducing Glyph

Tikal

Naranjo

Xaxchilan

Piedras Negras

Palenque

Copan

Birthday glyph

Accession Glyph

Shield Jaguar King

Bird Jaguar King

ED 416 107

baktun= 144,000 days

katun= 7,200 days

tun= 360 days

uinal= 20 days

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SO 026 701

the ART and ARCHITECTURE of the MAYA

TEACHER'S MANUAL

by Ann Campbell
edited by Dr. John Hoag
University of Colorado

Cauac, the Sky

solar eclipse

the Moon

Cab, the Earth

House Glyph

HISTORY through ART and ARCHITECTURE

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Baktun Glyph

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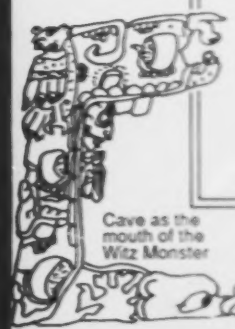
Cave as the mouth of the Witz Monster

2

Kin, the sun

Rigid Serpent Bar Double-headed Serpent

Cosmic Monster possibly Milky Way, from Altar 41, Copan

Double-headed Serpent Flexible Serpent Bar

3

HISTORY through ART and ARCHITECTURE

THE MAYA

written by Ann Campbell
edited by Dr. John Hoag

Consultant and editor, Dr. John Hoag is Professor Emeritus of Art History at the University of Colorado in Boulder. He graduated from Harvard in 1941 and received his Ph.D from Yale in 1958. From 1956 to 1965 Dr. Hoag not only taught at Yale but was also Art History Librarian. He is the author of "Islamic Architecture," published by Harry Abrams, 1977 and "Western Islamic Architecture," published by George Braziller in 1963. Dr. Hoag is an authority on Precolumbian Mexico, Maya and South American Art and Architecture. He has travelled extensively and has taught at the Univeristy of Colorado since 1965.

CONCEPT:
Alarion's Interdisciplinary HISTORY through ART and ARCHITECTURE Programs are designed to expand a student's horizon in history and art as well as introduce the basic concept of architecture and archaeology. By using a multicultural approach, students can better learn and understand the origins of their own heritage and begin to develop more critical thinking skills and positive aesthetic judgments. These programs serve as a jumping off point for further study and creativity as they activate a student's imagination and global awareness. The ideas and experiences of students today are continuously related to those of past periods. For the gifted student, whole new worlds are opened up. For the slower learner his or her eyes are opened and they will suddenly SEE what they never noticed before.

Objective:
At the completion of this program every person should have acquired a basic understanding of Maya Culture along with their Art and Architecture and be able to apply this knowledge to his/her present environment.

This Program contains:
Two Video Programs on one Video Cassette, one Four color Poster, one Creative Workbook, the pages of which may be copied by students and teachers, and **one Teaching Manual.**

This series of programs was developed by **Ann Campbell** in Boulder High School and Mapleton Elementary School over a period of 15 years.

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SUGGESTED LESSON PLAN FOR MAYA Part 1: Kings, Glyphs, Temples and Ballcourts

CONCEPT:
The oldest civilization on this continent was the Maya. They had their own writing, dating system and calendars. It was long believed they were a peaceful people, ruled by priests. Recently their writing has been deciphered and we now know they were warlike, cruel, with powerful god/kings, practicing bloodletting and human sacrifice. However, their art and architecture were magnificent as can be seen at the Classic Maya sites of Copan, Tikal and Yaxchilan.

BEFORE SHOWING THE PROGRAM:
From the **CREATIVE WORKBOOK** duplicate pages 1-19 and the **Syllabic Chart** on the back cover. (for each student or as many pages as you wish to use).
1. Ask students how they might create a language, like Pig Latin. How are languages translated, ie Spanish and Egyptian hieroglyphics?

SHOW MAYA PROGRAM,
Part 1: Kings, Glyphs, Temples and Ballcourts

AFTER SHOWING THE PROGRAM:
1. Students should read and do Activities on pages 1-2 . *Students see the extent of the Maya kingdoms, their dates and locations on the map of Central America.*

2. Only recently have the glyphs been deciphered. Understanding how *logograms* work on page 3 shows students one way to read Maya glyphs. *Enhances their critical thinking and analytical skills.*

3. The Activities on page 4 show the two Maya calendars and the Long Count dating system. *Challenges their mathematical abilities to calculate.*

4. Pages 5-7 introduce students to the Maya Cosmos and mythology. *This allows students to compare the beliefs of many cultures with those of the Maya.*

5. Page 8 shows how the Maya culture evolved from the cattered villages in 2500 B.C. into kingdoms of 10,000 or more people, by A.D. 200. *Compare this Maya time period of 2700 years with 370 years of U.S. history.*

6. The Activities on pages 9-12 show the architecture and sculpture of Copan and the creative personality of the god/king, 18 Rabbit. *Students see that, here, history was made by the personality of 18 Rabbit. The art and architecture of Copan will inspire their creativity and further their aesthetic judgment.*

7. The Activities on pages 13 - 16 on Tikal show students just how grand this tremendous kingdom was. They will learn the construction of the corbel arch as well as the building method of talud/tablero. *This insight into the grandeur of Maya culture helps them make a comparison with our own public buildings and monuments.*

8. Do the Activities on pages 17 - 19 The sculptures at Yaxchilan show the importance of bloodletting in the Maya culture. It was vital that each god/king trace his heritage back to the first king in his dynasty. *Enhances students perceptions of other beliefs and philosophies, thus broadening and hopefully reinforcing their own beliefs.*

9. Using the Syllabic Chart on the back of the Workbook, study the glyphs for *consonant/vowel sounds.* Have students write a sentence in English and then translate it into the Maya consonant/vowel glyphs on the chart. Now, ask them to try and decipher each others' sentences. *Enhances thinking/cognitive skills and helps students understand the difficulty of epigraphers and archaeologists in deciphering the Maya glyphs.*

10. **Review MAYA , Part 1, VIDEO**

THE MAYA, PART I
Kings, Glyphs, Temples and Ball Courts

1 TITLE: Lithograph by FrederickCatherwood of Copan Ruins 1841

BEFORE SHOWING PROGRAM: On a piece of paper have each person write in Pig Latin their date of birth and one special event and its date in their lives. Now exchange the papers and have each person decipher another person's history.

2 Pig Latin: "Strike Three, Kill the Umpire!"

What does this say? Why are the words so strange? Unless you know pig Latin you probably cannot translate it.

3 Maya Glyphs

These strange markings are Maya glyphs but for years no one knew how to translate them.

4 Frederick Catherwood drawing of fallen Tetuns at Copan, 1841

In 1839 two explorers, American John Lloyd Stephens and English artist Frederick Catherwood hacked their way through the jungles of Honduras, at Copan. They discovered temples covered with carvings and glyphs. Giant kings of stone, some fallen some still standing, guarded the ruins. Stephens bought the ruins for $50.00.

5 Left: Catherwood lithograph of 18 Rabbit in a long dress, Copan
Right: Stela D & Altar, 1844

Who were these people and where had this lost civilization come from? Stephens believed the glyphs were a written language that told their history. In 1841, Stephens and Catherwood published their book about these and other Maya ruins. Soon, there were hundreds of theories about the glyphs and the people who had made them.

6 Sir Eric Thompson and glyphs

Sir Eric Thompson noted archeologist did not believe the glyphs were a written language. He believed the glyphs stood only for numbers and dates in the Maya calendar while others were spiritual symbols of a peace-loving people ruled by priests.

7 Maya glyphs from "A Forest of Kings," by Linda Sheila and David Freidel

It was not for another 30 years that archeologists realized that the glyphs were based on a language still used by some Maya today. Words could be spelled with glyphs representing sounds as well as signs representing whole words. Now the glyphs can be read and often they tell a bloody history.

8 Map of Central America

Between 2500 B.C. and 1000 B.C. the earliest Maya people settled in the lowlands near the coast of the Yucatan Peninsula of Mexico, along the rivers of what is now Guatemala and Honduras and in the highlands of Guatemala near the Pacific coast. They planted corn and beans and lived in villages ruled by chieftains.

9 Map of Classic Lowland Maya Sites

Between 300 B.C. and A.D. 200, in what we call the Late Preclassic Period, the villages grew into kingdoms of 10,000 or more people.These are shown in the colored section on the map. Each kingdom was independent and probably ruled by its own king.

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10 El Mirador, Reconstruction

One of the largest Preclassic kingdoms was El Mirador, built between 50 B.C. and A.D. 50 in the Peten, the lowlands of northern Guatemala. It may have looked like this drawing. How did they build it? Limestone lies beneath the floor of the jungle. Axes of flint or obsidian were used to cut the limestone blocks which were still soft in the ground. Limestone hardens in the air.

11 Ritual Calendar 13 X 20 Named Days = 260 days

The Maya had two calendars, the Solar or Vague Year calendar of 365 days and the Ritual Calendar of 260 days. Here the numbers 1-13 mesh with the 20 named days in the 260 day calendar. Each day had a name and an omen or prophesy for the future. This Ritual Calendar acted like a fortune-telling machine guiding the lives of the Maya, their wars, ball games, and the crowning of kings.

12 Solar or Vague Year Calendar of 365 days, 52 Year Calendar Round

The 260 day Ritual Calendar meshed with the 365 day Vague Year or Solar Calendar. This calendar had 18 months of 20 days each with five unlucky days added on. The same day in each calendar met only once every 52 years.

13 Long Count: 20 kins = 1 uinal (or 20 days); 8 uinals = 1 tun (360 days) 20 tuns = 1 katun ; 20 katuns = 1 baktun (144,000 days)

The Maya put Long Count dates on their monuments measured from what they believed was the beginning of the 4th and last Creation of the World. Modern scholars believe that this zero date was August 13, 3114 B.C. Instead of using 365 day Vague year they used the *tun*, a 360 day year. You see here the Long Count cycles.

14 Stone Tetuns, 18 Rabbit at Copan

The Long Count Dates at Copan tell a great deal. We now know that the stone tetuns or tree stones that Stephens and Catherwood discovered in 1839, represented 18 Rabbit the 13th king of Copan. During his reign of 43 years he had 12 stone portraits of himself, carved out of volcanic rock and placed in the Great Plaza.

15 Rabbit Tetuns at Copan, 695

The faces are portraits in the round, decorated all over with glyphs or symbols. The glyphs tell who 18 Rabbit was and how he was directly related to the first god/king of Copan, Yax-Kuk-Mo, founder of the dynasty.

16 Reconstruction of Copan by Tatiana Proskouriakoff

This drawing by Tatiana Proskouriakoff, noted art historian and architect, shows how Copan in Honduras might have looked near the end of the Classic period in A.D. 800. In the Great Plaza on the left, are the 12 stone kings. To their right is the ball court, while behind is the Hieroglyphic Staircase and Acropolis.

17 Tetuns 18 Rabbit, Copan, 695

By the time 18 Rabbit became king in 695, Copan had grown into a city of between 8000-12000 people. The kings of Copan identified themselves with the World Tree. Why a tree?

18 Double-headed Cosmic Monster from Copan, c700

The Maya believed there were three layers to their world. The highest was the starry arch of heaven with the double-headed Celestial Monster, which probably was the Milky Way. The blood of the Celestial Monster became rain which fell when royal sacrifices or offerings were made on earth below.

19 Stoney Middle World shown as a Turtle, from Copan,c 700

The second layer was the Human Middleworld of Earth, shown as the back of a turtle. This world was alive with rivers, swamps, mountains and caves. The mountains and caves led into the Underworld.

20 Rollout of Late Classic vase, God L, and Lords of Death in Xibalba,

The bottom layer was the dark waters of the Underworld below, called Xibalba where God L, on the right, ruled over the Gods of Death. At sundown Xibalba rotated above the earth to become the night sky. In the center of the universe the gods laid three hearthstones in a triangle. At each of its four corners the Pawahtun-Bacabs held up the sky.

21 Two views of Ceiba Tree at Tikal

A great Ceiba tree ran through the center of the world holding up the sky. Its branches reached to the heavens. The trunk went through the Middle World with its roots in the watery underworld of Xibalba. This was the World Tree. When the Milky Way was in its N/S position it became the World Tree. When the Milky Way was in its E/W position it turned into the Celestial Monster.

22 Giant stone Macaw sculpture, 695, over-hanging the Ball Court, Copan

There were 16 kings of Copan in the dynasty of Yax Kuk Mo, the first king. Each one added something to Copan, but it was 18 Rabbit who added the most. Here 18-Rabbit decorated one of the two temples overlooking the ball court with a great macaw, a giant bird that hovers over it.

23 Rollout of a Maya vase showing ballgame, Late Classic

In the ball game the ball could not touch the floor of the playing alley because it might anger the Lords of Death below. Players scored points by knocking the ball into the end zone of the opponent but could not use their hands or feet in the game. At ceremonial games prisoners of war were sacrificed by having their heads cut off.

24 Victim tied in a ball, Ball Court Marker, late 700's

The Popol Vuh was the Bible of the Quiche Maya. The Maya believed that before the last Creation in 3114 B.C., there were two Hero Twins called Hunahpu and Xbalanque These Hero Twins were the children of earlier twins, Hun Hunahpu and Vacub Hunahpu who were called down to Xibalba, the Underworld, for making too much noise while playing the ball game. These earlier twins were tricked, defeated and decapitated by the Lords of Death.

25 Ball Court Marker, Late Classic

The Lords of Death hung the skull of Hun Hunahpu in a calabash tree. But the skull was found by the daughter of a Lord of Death. When she put out her hand the skull spit into her hand which made her pregnant. The girl fled from Xibalba to the Middle or Human world where she found the grandmother of the dead twins who helped her give birth to the new Hero Twins, Hunahpu and Xbalanque.

26 Rollout Maya Vase, 600-800, Dallas Art Museum

When the Hero Twins grew up they too played ball disturbing the Xibalbans who called them to come down to Xibalba for making too much noise. Once again, the Lords of Death set up a series of impossible tasks for the Twins to do. The Twins played ball by day and were tested each night. But the Twins outwitted, tricked and defeated the Lords of Death.

27 Hun Hanapu came up through the cracked shell of the turtle, to become the Maize God

Once they had defeated the Lords of Death, Hunahpu and Xbalenque resurrected the first set of Hero Twins, their father and uncle. Then, Hun Hanapu, their father, came up through the cracked shell of the turtle or earth to become the Maize God.

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28 Vacub Caquix from the Rosalila Structure beneath Acropolis, Copan, Late 600s

The Hero Twins also defeated Vacub Caquix, monstrous Bird Diety, who was the arrogant Sun of the Creation before this one. This relief stucco sculpture of Vacub Caquix on the facade of the Rosalila structure was discovered beneath the Acropolis at Copan, in 1991.

29 Ball Court Marker

In the end the Hero Twins rose up through the surface of the earth to the sky where they became the Sun and Venus. Each night they descended into Xibalba and at dawn rose into the heavens. This was the beginning of the Creation we are in now. Each Maya king believed he was a god/king and the earthly form of the Hero Twins. Just like Hunahpu and Xbalanque he would never really die.

30 Ball Court at Copan

The ball court was the place where life and death, victory and defeat, rebirth and triumph were played out. Outwitting the enemy was better than overpowering him. The ball court at Copan is one of the finest and best restored.

31 Reconstruction of East Court

18 Rabbit also rebuilt the Acropolis enriching the pyramid and temples with sculptures, which is the way you see them today.

32 Two views of Maize God from Temple 22, Copan, 695

He also built Temple 22 dedicated to the young Maize God, whom you see here from two sides looking incredibly lifelike although carved from stone.

33 Temple 22, Witz Masks, Copan

On each corner of Temple 22 he put masks of the Witz Monster. The open jaw of the Witz Monster represented the entrance through the sacred mountain into Xibalba, the Underworld.

34 Reconstruction of Inner Chamber of Temple 22 at Copan, 695

18 Rabbit stood on top of the inner chamber of Temple 22, his pyramid mountain. Human skulls run along the bottom step, representing Xibalba, while a Pawahtun-Bacab, or skybearer, on each side of the doorway, holds up the sky overhead. The double-headed sky monster arches overhead as the Milky Way.

35 Actual Inner Doorway of Temple 22, with Bacab holding up the double-headed Sky Monster

It was through blood letting that the king believed he could cause the axis of the Great World Tree to pass through the center of the temple and open the doorway into Xibalba. Now 18 Rabbit pierced the lose skin on his genitals with an obsidian blade.

36 Outer "Cave Entrance" Temple 22

His blood soaked his white robe running down between his legs and the long strips of bark paper that he threaded through the wound. The pain brought the king ecstatic visions which in turn brought forth the Vision Serpent and the ancient royal ancestors. -

37 Looking down from Temple 22 on East Court

The people gathered below believed they saw the Vision Serpent rising up in clouds of incense and smoke above the temple. The king had to show his ancient royal heritage with his blood for if his subjects lost faith in his divine powers to bring forth the spirit ancestors from Xibalba, they would leave the city.

38 Ball Court, Copan, Restoration Drawing of Tatiana Proskouriakoff

On May 3rd, 738 while 18 Rabbit was out looking for victims to be sacrificed to celebrate his new ball court, he himself was captured and beheaded by Cauac Sky of Quirigua, a smaller rival kingdom. 18 Rabbit was 62 and at the height of his reign.

39 Hieroglyphic staircase at Copan built by Smoke Shell, 756

The death of 18 Rabbit brought disgrace to Copan. It was Smoke Shell, the 15th king of Copan, who in 756, built the Hieroglyphic Staircase to overcome this disgrace.

40 Alfred Maudslay at Copan, 1891

First discovered, by Alfred Maudslay in 1891, thousands of carved blocks of stone were found scattered and buried beneath the jungle growth like a gigantic jigsaw puzzle. It has taken archeologists more than 100 years to make sense out of the glyphs and to put the 63 steps of the pyramid staircase back together. It is still not completed.

41 Details of Hieroglyphic Staircase

It records the dates of each of the last five high kings of the Yax-Kuk-Mo dynasty from A.D. 553-756. On the steps leading upward are life-size sculptures in battle dress of Smoke Monkey, 18 Rabbit, Smoke Imix God K, Butz-Chan and Moon-Jaguar.

42 Smoke Shell at foot of staircase

At the foot of the staircase Smoke Shell, the 15th king of Copan, stands looking up.

43 Altar Q built by Yax Pac showing Yax Kuk Mo' handing him scepter

Yax Pac the 16th and last king of Copan proved his heritage by placing all 16 kings around the sides of Altar Q. On one side, Yax Kuk Mo' the first king, seated left center, hands his scepter to Yax Pac, right center. By 822 Copan had collapsed.

44 Ceramic figures found at Scribe'stomb at Copan, Late 600's.

In recent years temples and tombs of earlier kings and scribes were discovered beneath the Acropolis and the Hieroglyphic Stairway. These lively ceramic figures were found outside the tomb of a scribe.

45 TIKAL Air photo of Tikal

TIKAL Many miles north and east of Copan is the kingdom of Tikal. In 600 B.C. Tikal was only a village but by A.D. 378 it had grown into a large city covering 222 square miles, ruled by King Great Jaguar Paw. Today, its six temple-pyramids look like towering skyscrapers!

46 Reconstruction of Tikal

The Great Plaza is the heart of Tikal. The Great Jaguar Temple I looks across at Temple II. Rising on its right is the Acropolis, an incredible complex of buildings that rise one on top of another. Each new king enlarged or built on top of earlier buildings. Tombs of earlier kings lie beneath them.

47 Great Plaza at Tikal, 695

In A.D. 219 Yax-Moch-Xoc became king of Tikal and founder of a long dynasty of 39 kings who came after him. Each of these so-called god/kings had to prove he was related to Yax-Moch-Xoc.

48 Temple Sub E VII at Uaxactun 300-200 B.C.

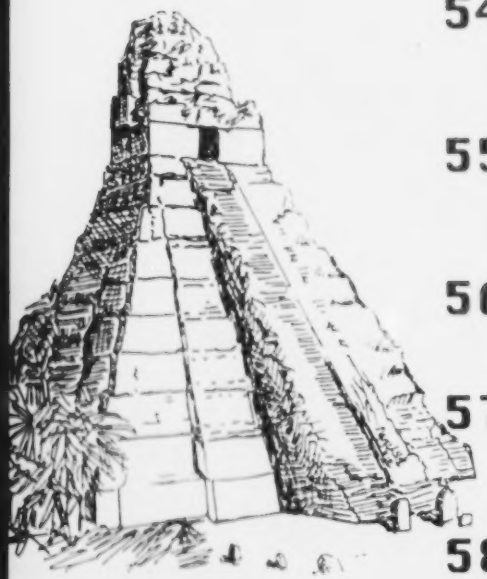
Just 2 days march east of Tikal was Uaxactun a great rival of Tikal. Where Temple I at Tikal is tall and narrow, this Temple at Uaxactun is short and square. It is a magnificent platform pyramid with steps leading to the top on all four sides.

49 Detail of above

Build in Preclassic times, c300-200 B.C., it is decorated with stucco sculptures of the Jaguar Sun God. The white stucco surface seems to glow from inside.

50 Rollout Vase from Tikal

In 378 Great Jaguar Paw, king of Tikal wished to invade Uaxactun. Tikal had become rich trading obsidian, pyrite and jade. Even traders from Teotihuacan, in the Valley of Mexico, came to Tikal bringing with them the *atlatl*, a new age type spear thrower.



51 Rollout Vase, Warrior Procession, Late 700's

Immediately, Great Jaguar Paw saw the power of this new weapon, and when the planet Venus was in the right position, he ordered his brother Smoking Frog to attack Uaxactun. Using the *atlatl*, Tikal warriors easily defeated the Uaxactun warriors. Probably the king and the ranking nobles of Uaxactun were brought back alive, tortured and decapitated.

52 Stele 31, side, Curl Snout dressed in warrior garb of Smoking Frog

Smoking Frog, became the new ruler of Uaxactun. Here, his nephew, Curl Snout wears Smoking Frog's battle dress, the balloon type headdress and shell necklace of Teotihuacan warriors. He carries the spear thrower, the *atlatl*, and a shield showing the goggle eyes of the Rain God of Teotihuacan.

53 "Lost World Group," Tikal

To celebrate the victory over Uaxactun, Great Jaguar Paw built this 100 foot tall platform pyramid in what archeologists call the "Lost World" complex at Tikal. It was built in Teotihuacan style with molding along the steps that is called *talud/tablero*. Discovered in 1964, these ruins are still being excavated.

54 Seven Temples at Tikal

The Plaza of the Seven Temples is next to the "Lost World' complex. The interior rooms of the temple are small and dark, roofed over with corbel vaults and crowned with a carved roof comb. For the next 200 years, the kings of Tikal waged bloody war against their neighboring kingdoms.

55 Left: View of unreconstructed Temple 1
Right: Temple 1,Tikal Reconstructed

Tikal was first discovered in 1695 by the Spanish Father Avendano and his companions who were lost and starving in the swamps and thorny forests. Suddenly they came upon the ruins, but it took all their strength to climb to the top. Much of Tikal has since been restored by the University of Pennsylvania and the Guatemala Government.

56 Views of Tikal

A great deal of Tikal still lies beneath the jungle. Nine groups of courts and plazas have been restored and these were once connected by causeways and ramps which were discovered by Alfred Maudslay in the late 1800s.

57 North Acropolis and view of Temple II

In 562, Tikal itself was defeated by Caracol, another city state. All building stopped at Tikal. It was not until Ah Cacao became king in 682 that Tikal regained its power and captured a high ranking noble of Calakmul. Ah Cacao rebuilt the North Acropolis, the Great Plaza and the Great Jaguar Temple I, which is the way you see them today.

58 Ah Cacao's Great Jaguar Temple I

In the early 700's Ah Cacao built the Great Jaguar Temple I with limestone blocks and covered them with stucco. Workers quarried stone and burnt limestone to make plaster for the smooth surfaces. It's massive tallness allows it to rise high above the jungle and be seen for miles. Ah Cacao's tomb lies beneath it.

59 Temple on top of Temple 1 and corbel vault from Ball Court, Copan

On its top is a temple of only 3 small rooms, roofed over by corbel vaults. A corbel vault, such as this one from Copan, is made by placing building blocks closer and closer together until they are joined at the top. The Great Jaguar Temple is topped by a beautifully carved roof comb.

60 Palace overlooking Great Plaza

Ah Cacao also rebuilt the palace overlooking Temple I with its many courtyards, apartments and terraces on different levels. The apartments are roofed over with corbel vaults. What you see today was built in the Late Classic period, the 9th century, just before Tikal collapsed.

61 YAXCHILAN View from Air

YAXCHILAN
West of Tikal in the deep forest/jungle on a horseshoe bend of the Usumacinta River lies Yaxchilan, a once powerful Maya kingdom. Broad terraces are cut into the high hills that rise above the river. On the highest summits are temples with carved roof combs. Even today, dugout canoes are still tied along the river's edge.

62 Temple 33 at Yaxchilan c756

In AD 320 Yat Balam was crowned king, the founder of a long dynasty of kings at Yaxchilan that remained unbroken until it was abandoned 500 years later. In AD 756 Temple 33 looked much more elegant. Its roof comb on top was tall and beautifully carved. Try to picture visiting dignitaries from Palenque, Tikal and Bonampak in brilliant costumes and feathers standing on the steps.

63 Lintel 24, Temple 23, Lady Xoc pulling rope of thorns through her tongue 756

One of Yaxchilan's great kings was Shield Jaguar, crowned in 681. Here Shield Jaguar holds a torch for his principal wife, Lady Xoc as she pulls a rope of thorns through her tongue. This was to celebrate the birth of Bird Jaguar, Shield Jaguar's son by his 2nd wife Lady Eveningstar from Calakmul. Lady Xoc had to do the bloodletting because of her royal blood line. The actual relief is on the left, and a drawing of it on the right.

64 Lintel 25, Temple 23, Lady Xoc and Vision Serpent 756

Here, Lady Xoc in an ecstasy of pain, gazes up at the Vision Serpent rearing up above her head as she calls forth the ancestors to witness her husbands accession to the throne. But Lady Xoc had her revenge. Her relatives kept Bird Jaguar, Lady Evening Star's son, from becoming king for 10 years after Shield Jaguar died at age 93.

65 Lintel 8, Temple 23, Bird Jaguar and Kan Toc capture Jewelled Skull

When Bird Jaguar finally become king on May 3, 752, he too created sculptures to prove he was the rightful king. Here, Bird Jaguar as conquering king, and Kan Toc, his general, capture Jewel Skull and another important victim for sacrifice.

66 Reconstruction of Copan

You have seen that while the Maya had basically the same beliefs, each Maya kingdom had its own history, kings, type of temple and style of sculpture. At Copan you saw the forest of tetuns, the stone kings and the ball court decorated with sculptures.

67 Great Plaza at Tikal

At Tikal you saw tall narrow skyscrapers and buildings piled on top of each other with towering roof combs in the Great Plaza.

68 Temple Sub E VII Uaxactun

At Uaxactun you saw the luminous platform temple, decorated with stucco Jaguar Suns.

69 Lady Xoc with thorns

At Yaxchilan the relief sculptures told a story of self inflicted bloodletting in order to convince the people of a young king's heritage.

70 END King from Hieroglyphic Staircase at Copan

In the next program you will see the brilliantly colored murals at Bonampak, the sculptures and temples at Palenque and the Puuc Maya cities in the lowlands and of the northern Yucatan. You will also see the Maya Itzas at Chichen Itza and the Spanish conquest.

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Maya 1 - Kings, Glyphs, Temples and Ball Courts

1. Drawing of Frederick Catherwood of Copan Ruins 1841
2. Pig Latin: "Strike Three, Kill the Umpire!"
3. Maya Glyphs
4. Frederick Catherwood drawing of fallen Tetuns at Copan, 1841
5. Catherwood lithographs of Copan Ruins, left: 18 Rabbit in a long dress, right: Stela D and Altar, 1844
6. Sir Eric Thompson and glyphs
7. Maya glyphs from "A Forest of Kings," by Linda Sheila and David Freidel
8. Map of Central America
9. Map of Classic Lowland Maya Sites
10. El Mirador, Reconstruction
11. Ritual Calendar 13 X 20 Named Days = 260 days
12. Solar or Vague Year Calendar of 365 days, 52 Year Calendar Round
13. Long Count
14. Stone Tetuns, 18 Rabbit at Copan
15. 18 Rabbit Tetuns at Copan, 695
16. Reconstruction of Copan by Tatiana Proskouriakoff
17. Tetuns 18 Rabbit, 695
18. Double-headed Cosmic Monster from Copan, c700
19. Stoney Middle World shown as a turtle sculpture from Copan, c700
20. Rollout of Late Classic vase, God L and Lords of Death in Xibalba,
21. Two views of Ceiba Tree at Tikal
22. Giant stone Macaw sculpture, 695, overhanging the ball court, Copan
23. Rollout of a Maya vase showing ballgame, Late Classic
24. Victim tied in a ball, late 700's
25. Ball Court Marker, Late Classic
26. Rollout Maya pot, 600-800, Dallas Art Museum
27. Hun Hanapu comes up through the cracked shell of the turtle, the earth, to become Maize God
28. Vacub Caquix from the Rosalila Structure beneath Acropolis at Copan, Late 600's
29. Ball Court Marker
30. Ball Court at Copan
31. Temple 22, Copan
32. Two views of Maize God from Temple 22, Copan, 695
33. Temple 22, Witz Masks, Copan
34. Reconstruction of Inner Chamber of Temple 22 at Copan, 695
35. Actual Inner Doorway of Temple 22, with Bacab holding up the double-headed Sky Monster
36. Outer "Cave Entrance" Temple 22
37. Looking down from Temple 22 on East Court
38. Ball Court at Copan, Restoration Drawing of Tatiana Proskouriakoff
39. Hieroglyphic staircase at Copan built by Smoke Shell, 756
40. Alfred Maudslay at Copan, 1891
41. Details of Hieroglyphic Staircase
42. Smoke Shell at foot of staircase
43. Altar Q built by Yax Pac showing Yax Kuk Mo' handing him scepter
44. Ceramic figures found at Scribe's tomb at Copan, Late 600's.
45. **TIKAL** Air photo of Tikal
46. Reconstruction of Tikal
47. Great Plaza at Tikal, 695
48. Temple Sub E VII at Uaxactun 300-200 B.C.
49. Detail of above
50. Rollout Vase from Tikal
51. Rollout Vase, Warrior Procession, Late 700's
52. Stele 31, side, Curl Snout dressed in warrior garb of Smoking Frog
53. "Lost World Group"
54. Seven Temples at Tikal
55. Left: View of unrestored Temple 1 Right: Restoration, today
56. Views of Tikal
57. North Acropolis and view of Temple II
58. Ah Cacau's Great Jaguar Temple I
59. corbel vault from Ball Court, Copan
60. Palace overlooking Great Plaza
61. **YAXCHILAN** View from Air
62. Temple 33 at Yaxchilan 756
63. Lintel 24, Temple 23, Lady Xoc pulling rope of thorns through her tongue 756
64. Lintel 25, Temple 23, Lady Xoc and Vision Serpent 756
65. Lintel 8, Temple 23, Bird Jaguar and Kan Toc capture Jewelled Skull and friend.
66. Reconstruction of Copan
67. Great Plaza at Tikal
68. Temple Sub E VII Uaxactun
69. Lady Xoc with thorns
70. **END** King from Hieroglyphic Staircase at Copan

SUGGESTED LESSON PLAN FOR MAYA Part 2: The Rise and Mysterious Decline of the Maya Kingdoms

CONCEPT:
As the Classic Maya kingdoms, including Bonampak and Palenque, grew in magnificence, more and more people moved in. By the year 800 the overused farmland could no longer feed the people. The kings were no longer all-powerful. Without a strong king and without food, the people abandoned these cities. In 925 the Puuc cities in NW Yucatan blossomed and faded, followed by Chichen Itza in 1100 and the Spanish in the 1500's.

BEFORE SHOWING THE PROGRAM
Duplicate pages 20 - 31 in the **CREATIVE WORKBOOK** (for each student or as many pages as you wish).
1. Ask students to discuss signs and billboards they have seen. Signs and billboards tell a story about a product, a place or an event. The Maya murals at Bonampak told a similar story.

SHOW MAYA VIDEO: Part 2
The Rise and Mysterious Decline of the Maya Kingdoms

AFTER SHOWING THE PROGRAM
1. Do the Activity on page 20, preferably in the Art Room. Either review the Bonampak murals on the video or try to locate full color reproductions. *Stimulates their creative imaginations and aesthetic skills.*

2. Do Activities on pages 21-24. Extraordinary art and architecture was created by the Palenque god/kings trying to prove their direct line of birth from the first king of the dynasty. *Students can see how Maya philosophical beliefs influenced their aesthetics.* By 800 Palenque along with Tikal, Copan, Yaxchilan, and Bonampak were abandoned.

3. Do Activities on pages 25-26, which deal with the Puuc cities in the northwest Yucatan. Different land, different kinds of buildings and less important kings created a new style of architecture. *Enhances their visual skills, aesthetic judgment, analytical and comparison skills and imaginations.*

4. The Activities on pages 27 - 29 are about Chichen Itza. Students can see how the Mexican influence change the Maya philosophy, which in turn, changed their art and architecture. *Enhances students perceptions and ability to compare different styles. This in turn sharpens their critical judgment of buildings and art around them, today.*

5. On page 30 the "Last Maya Kingdom," shows the coming of the Spanish. Ask students to create and construct their own discussion questions and quizzes. It's important for them to verbalize the most important aspects of the Maya and what the contributions of the Maya meant to them. *Enhances their intellectual, writing and communication skills.*

6. Do the Quiz on page 31. *Humor is an excellent teacher.*

7. **Review MAYA Part 2, VIDEO**
Now ask the students to write a paragraph(s) on a sculpture, painting or piece of architecture they have seen in the Video. They should describe the object, tell its meaning (if they know it), discuss its style and try to relate it to the overall Maya site. Lastly, they should tell how they feel about it.

THE MAYA Part 2
The Rise and Mysterious Decline of the Maya Kingdoms.

BEFORE SHOWING PROGRAM: Discuss the effectiveness of billboards. What do they tell you, what kinds of hidden messages to they give you? Ask each student to design a billboard that gives a single, powerful message.

1 TITLE: Bonampak Mural, Temple 1, Room #2, 692

2 Billboard today

BONAMPAK
Giant billboards tell you about a product, about an event or even a great place to go. You see bill-boards all over. The murals at Bonampak were a little like billboards. They tell of an important event.

3 Bonampak Mural, Room #1, in Temple 1, 692

South of Yaxchilan along a tributary of the Usumacinta River was Bonampak, a vassal of Yaxchilan. On the walls of three rooms in Temple 1 at Bonampak were magnificent murals. The first room tells about the presentation of a young heir to the throne. Musicians sing and beat time while dancers in monstrous masks do their dance.

4 Room #2, Temple 1 Bonampak, 692

In room number 2, the King of Bonampak, Chaan-muan stands on top of a high platform, dressed in a jaguar skin. His Queen stands nearby as do dignitaries wearing feathered headdresses on either side. An important prisoner, exhausted from torture, sprawls on the steps pleading for his life. On the steps beneath him are many captives, stripped of their finery, their nails torn from their fingers. They will be decapitated.

5 Left: Room #3, Temple 1, Bonampak Right: View of whole Room #1, 692

In the third room, Ladies and Lords in extravagant costumes and masks shed their blood in a ritual ceremony by piercing their tongues and genitalia. All of this was to celebrate the young heir to the throne, who hoped one day to become king. Probably in the end, the young boy never ascended the throne because by 800, even before the murals were finished, Bonampak was abandoned.

6 PALENQUE air view

PALENQUE Another Classic site, Palenque lies at the foot of a chain of low hills covered with tall rain forests just above the green flood plain of the Usumacinta River. It is home to brilliantly colored parrots, macaws and howler monkeys.

7 Air view Palenque

Palenque was once a prosperous Maya city teeming with people with magnificent temples, a pyramid, palace and ball court built among the hills and valleys.

8 Palace at Palenque c680

A sprawling Palace with a tall watch tower looks out over Palenque. A stairway climbs upward inside the tower which was probably used as an observatory The Palace is 300 feet long and 240 feet wide (91x73 M) . It has many vaulted galleries and rooms arranged around interior courtyards.

9 Sculptures of Captives from Palace, 680's

Around the sides of this courtyard are sculptures of captives, one hand raised to the opposite shoulder to show their defeat. They have been stripped of their finery, their heads turned in profile. This was probably where prisoners were tortured and kept for sacrifice.

10 Sculpture of Pacal the Great, 675

The two greatest kings of Palenque were Pacal the Great, whom you see here, and his son Chan-Bahlum. Pacal's line to the throne did not come through his father, but through his mother Lady Zac-Kuk, who ruled as king.

11 Relief of Pacal with his mother, Lady Zac Kuk, 680's, Palenque

Lady Zac-Kuk's grandmother had also ruled as king. Even after Pacal ascended the throne at the age of 12 in 615, Lady Zac Kuk continued to rule as regent for 25 more years. Here on the right, Lady Zac seated on Pacal's left, hands him his crown.

12 Temple of Inscriptions, 680's, Palenque

When Pacal finally became king, he had to convince his people that both he and his son Chan-Bahlum were directly descended from the first god/king of the Palenque dynasty. Pacal built his greatest monument, the Temple of Inscriptions, to prove this.

13 Temple of Inscriptions, 680's, Palenque

When he turned 70, Pacal began to build his tomb. Against the natural mountain face, across from the Palace, a huge block of limestone was set into a pit. This would become Pacal's coffin.

14 Lid of Stone Coffin of Pacal, 683, Palenque

On the heavy stone lid of the coffin artists drew images of Pacal falling down the trunk of the World Tree into the open jaws of the Other world. A drawing of the coffin lid is on the right. As Pacal falls a half-skeletal monster head falls with him, carrying the glyph of the sun. Like the sun the king would rise again in the east after his journey through Xibalba.

15 Carvings around tomb, 683

Around the sides of the coffin, artists carved royal ancestors and showed Pacal's mother, Lady Zac Kuk as if she were the first Mother of the Gods, the Goddess of the Moon.

16 Cut-away Temple of Inscriptions, Palenque

Above and around the stone coffin or sarcophagus, a room was built and filled with sand. Then Pacal had his workmen build above it a giant pyramid 65 feet (19.9 meters) tall. On the very top he put a temple. This was the Temple of Inscriptions.

17 Corbel vaults of Temple of Inscriptions

How do we know all this? One day in 1952 Mexican archeologist, Alberto Ruz was studying stucco relief sculptures of Pacal the Great on the stone piers of the Temple of Inscriptions. He noticed that one of the large stone slabs on the floor of the temple had a double row of holes with removable stone stoppers.

18 2 Views of steps leading down to Pacal's tomb

When Ruz's men lifted the stone slab they found a dark, slippery vaulted stone staircase, leading down into the interior of the pyramid. It had been deliberately choked with rubble. As they dug it away, they came upon the skeletons of 5 young adults in the passageway.

19 View of Reconstructed Tomb of Pacal, Nat. Mus. of Anthropologia, Mex.D.F.

They had been sacrificed for the death of the king who died at age 80. At the far end they found the funerary crypt and Pacal's tomb, still undisturbed! It was an incredible discovery.

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20 Temple of the Sun foreground.

When Pacal's son, Chan Bahlum became king, he too had to prove his direct line to the first god/king of the dynasty. He built three platform temples set against the dark green of the tall rain forest: the Temple of the Sun, which you see in the foreground, Temple of the Cross and Temple of the Foliated Cross.

21 Left: Temple of the Cross, Palenque Right: Temple of Foliated Cross

Each temple rests on a stepped platform with stairs leading up the front. On the left is the Temple of the Cross, while on the right is the Temple of the Foliated Cross. The roof on each temple slopes inward, lightening the weight, allowing the vaults to be made wider. A roof comb crowns the top of all three roofs. Inside each temple there was a sanctuary.

22 Left: Temple of the Cross, Right: Cut away drawing of same

On the left is the Temple of the Cross. On the right is a cut-away drawing of the Temple of the Cross allowing you to see how the inner chambers and the roof comb were built with corbel arches.

23 Reconstruction of Temple of the Sun

Sculptures of the Witz monster decorate the roof of this reconstruction of the Temple of the Sun, with its open roof comb crowning its top. The temple was believed to be a "living mountain." The Temple's inner sanctuary was its heart.

24 The back wall of Temple of the Sun, Early 700's

On the back wall of the sanctuary a relief sculpture shows Chan-Bahlum acceding to the throne in Jan. 10, 690. In his hands he holds a small figure of God K or Kawil, the God of Royal Lineages. Pacal, who is now dead, stands opposite him, on top of a bound captive.

25 Relief carving from Temple of the Cross, 700

The Temple of the Cross shows sculptures of Chan-Bahlum standing on the right with Pacal on the left. In the center is the World Tree with the Celestial Bird on top.

26 God L with cigar from Temple of the Cross Palenque, 700's

On the right God L smokes a cigar. God L ruled Xibalba. He is shown as frail and bent with age and wears a mythological bird on his headdress.

27 Relief carving from Temple of the Foliated Cross, 700's

In the Temple of the Foliated Cross, Chan-Bahlum stands on the left on top of a witz mountain, while Pacal stands on the Right. Chan-Bahlum also showed his grandmother Lady Zac Kuk as if she were the First Mother of the Gods.

28 Palace at Palenque

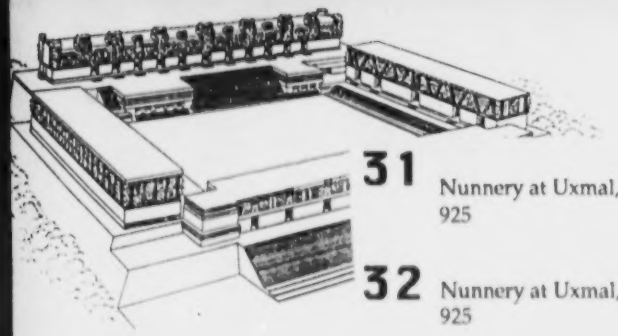
What happened to Palenque? No one is sure. Palenque, Copan, Tikal, Uaxactun, Yaxchilan and Bonampak all reached their full glory by the late 700s. But in the 100 years that followed kings no longer had power. The slashing and burning of forests for planting corn had worn out the land. The burning of forests to make lime for stucco eroded the land. There was not enough food and people drifted away. In the end these magnificent cities were abandoned.

29 **UXMAL** Air view at Uxmal

UXMAL As these cities declined, Maya Puuc cities in the northwest Yucatan began to blossom. We call this period from 850 to 925 the Terminal Classic. Bottle-shaped cisterns called *chultuns*, caught the rain for drinking water and sometimes stored food.

30 Pyramid, House of the Magician

The largest of these Puuc cities was Uxmal. Here you see the House of the Magician, a huge rounded pyramid with a small temple on top. Today it has been restored with a chain running from top to



top to bottom to steady those climbing up its dizzy heights. At the top you enter the temple through a Witz Monster mask doorway

31 Nunnery at Uxmal, 850-925

Nearby is the Nunnery, named later by the Spanish, which was probably a palace. Four separate rectangular buildings were built around an interior courtyard. The principal gateway was on the south side through a corbel arch.

32 Nunnery at Uxmal, 850-925

Can you see the mosaics on the stone facades of the buildings? They copied in stone the thatched roofs of the houses of the nobles.

33 Great Pyramid at Uxmal 850-925

From the Nunnery you may walk across the ball court and climb up the Great Pyramid set into a high hill, with a small temple on top. It is still being restored.

34 Long snouts of Chac on Temple on top of Great Pyramid, 850-925

Long-hooked shaped snouts of Chac the Rain God and rows of short columns decorate the small temple on top.

35 Looking across at House of the Governors, Uxmal, 850-925

The Great Pyramid looks across at the House of the Governors believed to have been the seat of government for Lord Chac ruler of Uxmal. Lord Chac did not spend time trying to prove his descent from godlike ancestors.

36 House of Governors, 850-925

The House of the Governors is really three buildings whose surfaces are covered with thousands of thin squares of limestone. They create wonderful pattern of step-and-fret lattice-work, peppered with the long hooked-shape snouts of the God Chac.

37 House of Governors, 850-925

This is another view of the House of the Governors. Uxmal was once connected to other sites by a causeway 11 1/4 mile (18 km).

38 Sayil three story palace, 850-925

Not too far from Uxmal is Sayil with its three-story palace with hundreds of small vaulted rooms. Its lower floor has since collapsed. Set into the walls are long rows of half-columns.

39 Archway at Labna, Lithograph by Catherwood, 850-925

In Catherwood's lithograph you can see the extraordinary corbel archway at Labna. It is decorated in Puuc style with rows of columns, zigzag cornices and lattice fret designs.

40 South Corbel Arch entrance to Nunnery

Gradually, the Puuc cities became overpopulated, the land used up and food became scarce. By the end of the 900s their power had declined and the people drifted away.

41 **CHICHEN ITZA** Caracol Observatory, c900

CHICHEN ITZA Into this vacuum came the Itza a Maya speaking people living close to Mexico. The Itza brought with them Mexican culture, Mexican gods and the belief that on certain "named days," only the sacrifice of a victim's still-beating heart could satisfy the gods.

42 Sacred Cenote at Chichen Itza

In 849 the Itza occupied Chichen Itza, south of Uxmal. The name Chichen Itza means "The Opening of the Wells of the Itza." There are two large cenotes at Chichen Itza. A cenote is an underground sinkwell or cavern of water whose stone roof has collapsed inward.

43 Cenote and Mayapan figure found in it

The Great Cenote at Chichen was believed to be the watery surface of the Other world. Hundreds of offerings were flung into its dark waters, including some say, virgins, but more probably young children were sacrificed to beg the God Chac to bring rain.

44 Nunnery at Chichen Itza, Late 900's

The Nunnery at Chichen Itza is also in the Puuc style. Its walls are built with rubble and cement. Thin squares of limestone veneer were set into this rubble core, covered with stucco and decorated with long-snouted Chac Gods. Chac was the same as the Mexican god Tlaloc.

45 Detail

The stucco glyphs on the Nunnery tell of many bloodletting rituals but none of them tell of kings. There were no kings at Chichen Itza. It was ruled by a Council of Lords. During this time Chichen Itza may have been ruled jointly by 3 or 4 brothers and it grew into a powerful empire.

46 Caracol at Chichen Itza, Late 900's

Close by the Nunnery is the Caracol (snail) an observatory where the Mayas could follow the movements of stars and planets. The Maya used lines of sight taken from its platforms, doors and window jambs to plot the rising and setting positions of the sun, moon and planets Venus and Jupiter.

47 Head of Serpent Kukulcan, Temple of the Warriors at Chichen Itza, Early 1000's

There were 2 Mexican myths about the Mexican God Quetzalcoatl. He was both the Feathered Serpent God and the god/king of Tula. As the King of Tula, Quetzalcoatl was tricked by his brother Tezcatlipoca, into leaving Tula. He went east, and some say it was he who came to Chichen Itza where he was called Kukulcan, (*kukul* = feathered and *can*-serpent).

48 Battle mural Temple of the Warriors, Chichen Itza

This is a drawing, of a battle mural, now destroyed from the Temple of the Warriors at Chichen Itza. Until recently archeologists believed that it showed Toltec warriors from Tula in Mexico conquering the Maya at Chichen.

49 Temple of the Warriors at Chichen Itza

They believed that Chichen Itza was merely an outlying state of Tula. Archeologists now believe it was the other way around that Chichen Itza was the powerful empire and that Tula copied it. This is the dramatic Temple of the Warriors at Chichen Itza.

50 Temple of Warriors at Tula, Early 1000's

This is The Temple of the Warriors at Tula. Perhaps you can see it was copied from the Temple of the Warriors at Chichen Itza. Giant warriors, called Atlantids, once held up its roof.

51 Columns ,Temple of the Warriors and man posing as Earth Monster

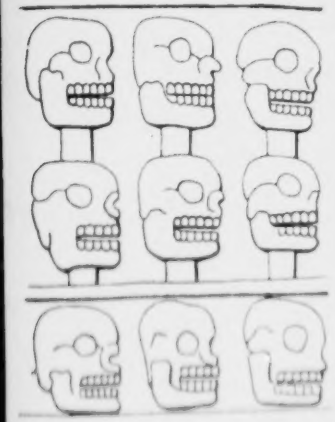
On the ground level of the Temple of the Warriors at Chichen Itza are rows of square stone piers decorated with carved reliefs of warriors standing on top of an Earth Monster. On the right a man takes the same position as the Earth Monster.

52 Steps leading up Temple and Kukulcan

Steps lead up the front of the temple to a platform on top where two gigantic stone feathered serpents guard the entrance. Their open jaws are huge and hungry, while their bodies rise up forming two stone columns on either side that once held up a roof. They are Kukulcan, the Mexican Quetzalcoatl.

53 Chacmool at top of Steps, Early 1100's

At the top of the steps is the half reclining figure of Chacmool. He looks out at you holding a dish on his belly probably waiting for freshly cut-out hearts for sacrifice, which was the Aztec method of sacrifice.



54 Bench held up by small Atlantids, Temple of the Warriors

As you walk to the rear of the temple there are more carved columns. In the inner sanctuary of the temple is a low bench held up by small human figures, called Atlantids. This may have been where the lords of the ruling council sat.

55 Warrior emerging from Serpent's jaw.

Along the outer temple walls a serpent head holds a warriors head in its jaws.

56 View from the air

Stretching out from the Temple of the Warriors at Chichen Itza is a colonnade of 1000 columns where there once may have been a huge market. Seen from the air it's an extraordinary sight.

57 View of Castillo from Temple of Warriors, Chichen Itza

Across from the Temple of the Warriors is the Castillo, a pyramid with a temple on top. Each day crowds of people eagerly climb up the steep stairway to enter the temple on top.

58 Castillo, 1100 Chichen Itza

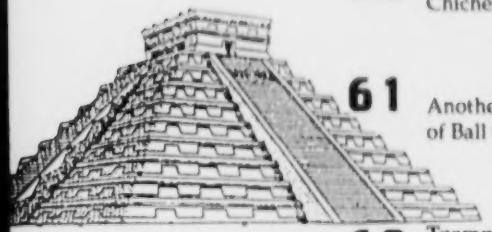
The Castillo is angled so that during the spring and autumn equinoxes, at sunset time a serpentine body of light and shadow slithers down the stairway to a stone serpent head at the bottom.

59 Red Jaguar throne, interior of Earlier Temple, Late 900' s

Inside the temple more stairs lead you up into the inner sanctuary of an earlier temple with its red jaguar throne and Chacmool, on whose belly freshly sacrificed hearts were probably laid.

60 Ball Court, 1100 Chichen Itza

The ball court at Chichen Itza is the largest in Mesoamerica. The ball had to go through the stone ring high up on the wall. The Temple of the Jaguars, where the nobility sat, looms high above the ball court, while around the sides and ends, the spectators sat and cheered on the long rows of stone steps. It is said if you drop a stone at one end, it can be heard at the other end.



61 Another View of Ball Court

Ball players wore a yoke around their waists and a palma to protect their chests from the hard rubber ball. The ball court was the place where life and death, victory and defeat were played out. The losing captain and perhaps losing team were all sacrificed.

62 Tzompantli, 1100 Chichen Itza

Near the ball court is the Tzompantli, the stone skull rack where skulls of sacrificial victims were hung to dry. Its sides were decorated with carvings of human skulls.

63 Two Mayapan clay figures

Near Chichen Itza was a smaller kingdom, called Mayapan. In 1224 the Mayapan King, Hunac Ceel, conquered Chichen Itza, driving out the Itzas. The Chichen Empire was ruled by the Mayapan until it collapsed around 1450.

64 Tulum Air view 1224

The best preserved of these Mayapan cities was Tulum, which today stands high above the Caribbean coast and can be seen from faraway.

65 Tulum, 1224

Many of the buildings at Tulum are poor copies of those at Chichen Itza. Tulum thrived as a religious and trading center for seagoing Maya merchants from about A.D. 1200 until the conquest of the Spanish. Canoes could safely land at the beach within its walls.

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66 Cortes landing at Vera Cruz, 1518, Florentine Codex

In 1511 a Spanish ship went aground and 20 sailors finally made their way to the Yucatan coast. All but two were sacrificed and eaten. One of the men who escaped married a Maya lady and became a Maya Lord, while the other joined Cortes on Cozumel Island in 1517 from where they sailed north to conquer the Aztecs.

67 Early Spanish painting

When the Spanish came back to conquer and convert the Maya to Christianity, the remaining Maya kingdoms stubbornly resisted. Not until 1697 did the last Maya kingdom, Tayasal, (at today's Flores) in Lake Peten Itza, fall. Warfare, famine and epidemics of small pox decimated the Maya population and they were treated miserably by the Spanish.

68 Lacandon May a Girl, 1980's

Today many of the 5 million Maya people still live in villages and farms. Many more live in the modern city of Merida. Farmers still slash and burn the trees and undergrowth on the steep mountains slopes. They still plant by pushing kernels of corn into the ground with a stick using up the precious land. Like the ancient Maya they set three hearthstones in a triangle in their houses to cook.

69 Chamula St. John the Baptist day

At Chamula near St. Cristobele de las Casas in Chiapas, on the day of John the Baptist, Catholic and Maya beliefs are joined in a religious fiesta with horse racing, processions, costumes and masks, offerings and incense.

70 Bonampak Mural

You have seen that the ancient Maya during the Classic period created stunning paintings at Bonampak.

71 Temple of Inscription, Palenque

At Palenque the sculptures and architecture set against the rain forest created the mystical kingdom of Pacal the Great.

72 House of the Magician, Uxmal

As Copan, Tikal, Yaxchilan, Bonampak and Palenque declined in the 9th century, the Puuc cities such as Uxmal blossomed.

73 Castillo, Chichen Itza

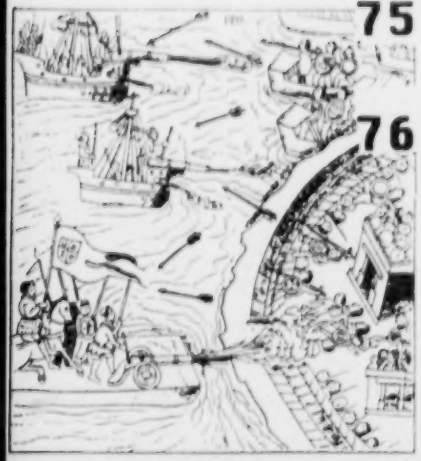
In the year 849 the Maya Itzas occupied Chichen Itza bringing with them Mexican gods and beliefs.

74 Chichen Itza, Temple of the Warriors

The Itzas created a far-reaching empire that was copied even at Tula in Mexico.

75 Market day, Chimula

Today the kings are gone, but the Maya still create beautiful objects, pottery, fabrics and flowers. Many of them still believe in the Maya gods, in Xibalba, the Tree of Life and Hero Twins. They make sacrifices of chickens and beer. They burn copal on their alters.



76 END Bonampak, Room #1, Reconstruction Painting

The civilization of the Maya was extraordinary, their written language, their accurate system of dating, their knowledge of stars, planets, sun and moon, their magnificent architecture and sculpture. Each day archeologists are still making new discoveries bringing us new stories of kings and queens.

MAYA 2 - The Rise amd Mysterious Decline of the Maya Kingdoms

1. **BONAMPAK** Temple 1, Room #2, Mural, 692
2. Billboard today
3. Bonampak Mural Room #1, 692
4. Room #2 , 692
5. Left: Room #3. Right: View of Room #1, 692
6. **PALENQUE** Palenque air view
7. Air view of Palenque
8. Palace at Palenque, 680's
9. Sculptures of Captives from Palace, 680's
10. Sculpture of Pacal the Great, 675
11. Relief of Pacal with his mother, Lady Zac Kuk, 680's
12. Temple of Inscriptions, 680's
13. Temple of Inscriptions, 680's
14. Lid of Stone Coffin of Pacal, 683
15. Carvings around tomb, 683
16. Cut-away Temple of Inscriptions
17. Corbel vaults of Temple of Inscriptions
18. 2 Views of steps leading down to tomb
19. View of Reconstructed Tomb of Pacal, Nat. Mus. of Anthropologia, Mex.D.F.
20. Temple of the Sun foreground.
21. Left: Temple of the Cross. Right: Temple of Foliated Cross
22. Left: Temple of the Cross, Right: Cut-away drawing of same
23. Reconstruction of Temple of the Sun
24. Relief carving from back wall of Temple of the Sun, Early 700's
25. Relief carving from Temple of the Cross, Early 700's
26. God L with cigar from Temple of the Cross
27. Relief carving from Temple of the Foliated Cross, Early 700's
28. Palace at Palenque
29. **UXMAL** Air view at Uxmal
30. Pyramid, House of the Magician
31. Nunnery at Uxmal, 850-925
32. Nunnery at Uxmal, 850-925
33. Great Pyramid at Uxmal, 850-925
34. Long snouts of Chac on Temple on top of Great Pyramid, 850-925
35. Looking across at House of the Governors
36. House of Governors, 850-925
37. House of Governors
38. Sayil three story palace, 850-925
39. Archway at Labna, 850-925
40. South Corbel arch entrance to Nunnery
41. **CHICHEN ITZA Caracol, (Observatory)**
42. Sacred Cenote at Chichen Itza
43. Cenote and item found in it
44. Nunnery at Chichen Itza, Late 900's
45. Detail
46. Caracal at Chichen Itza, Late 900's
47. Head of Kukulcan Temple of the Warriors at Chichen Itza, Early 1000's
48. Battle Mural Temple of the Jaguars
49. Temple of the Warriors at Chichen Itza
50. Temple of Warriors at Tula, Early 1000's
51. Columns Temple of the Warriors and man posing as Earth Monster
52. Steps leading up Temple and Kukulcan
53. Chacmool at top of Steps, Early 1100's
54. Bench held up by small Atlantids
55. Warrior emerging from Serpent's jaws
56. View from the air
57. View of Castillo from Temple of Warriors
58. Castillo, 1100
59. Red Jaguar throne from interior of Early Temple , in Castillo, Late 900's
60. Ball Court, Chichen Itza, 1100
61. Another View
62. Tzompantli, Chichen Itza, 1100
63. Tulum, 1224
64. Tulum Air view
65. Tulum
66. Cortes landing at Vera Cruz, 1518 Florentine Codex
67. Early Spanish painting
68. Lacandon Maya Girl, 1980's
69. Chamula, St. John the Baptist day
70. Bonampak Mural
71. Temple of Inscription, Palenque
72. House of the Magician, Uxmal
73. Castillo, Chichen Itza
74. Chichen Itza, Temple of Warriors
75. Market day, Chamula
76. **END** Bonampak, Room #1 Temple 1

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We wish to acknowledge and thank the authors of these books for their incredible scholarship not only in deciphering the Maya glyphs but in their interpretation and understanding of the history of the Maya.

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GLOSSARY

archaeology - the study of the evidence of the remains of early human cultures.
atlantid - sculpture of a man used as a column to hold up a roof
atlatl - throwing stick with a spear attached
Bacab - a skybearer
baktun - 20 katuns or 144,000 days in the Maya Long count
bloodletting - drawing blood
ceiba tree - tall straight tree found at Tikal
Celestial Monster - double-headed sky creature possibly Milky Way
cenote - underground open well
Chac - Maya Rain God
chacmool - a semi-reclining figure in whose lap human hearts were placed during sacrifices
chultun - bottle shaped cistern
cistern - catch basin to store rain water
colonnade - connecting row of columns
copal - resin from trees used as incense
corbel arch or vault - formed by placing building blocks closer and closer together until they meet at the top
decapitated - beheaded
dugout canoe - canoe dug out of a huge tree
dynasty - descendents of a long family line
equinox - one of two points when the sun crosses the equator and days and nights are equal
fiesta - a festival
funerary crypt - a tomb
glyph - symbol of a letter, word or phonetic syllable
Hero Twins -Xbalanque and Hunahpu
Hieroglyphic Staircase - staircase covered with glyphs telling history of kings
Hunahpu - Hero Twin
Hun Hunahpu - father of the Hero Twin who became the Maize God
katun - 20 tuns or 72000 days in the Maya Long Count
Kukulkan - Maya name for Mexican god, Quetzalcoatl
lithograph - method of printing by drawing with grease pencil onto a stone
Long Count - Maya way of counting years
Lords of Death - Gods of the Underworld, Xibalba
Middle World - human world
Maize God - Hun Hunahpu, father of the Hero Twins
kin - one day in the Maya Long Count
palma - chest protector in ball game
Pawahtun -Bacabs - 4 sky bearers who held up the four corners of the sky
Popol Vuh - Bible of Quiche Maya who lived in Guatemala Highlands
regent - someone who rules for underage heir to the throne
relief sculptures - Drawings carved into stone
Ritual Calendar - 260 Named-day Calendar
roofcomb - corbel arches and vaults on top of Maya Temple
sanctuary - sanctified room inside a temple
Solar Calendar - 365 day calendar or Vague Year Calendar
stucco - white coating on temples or pyramids made from limestone heated to very high temperatures.
tablero - vertical part of construction in talud/tablero
talud - slanting part of construction in talud/tablero
tetun - tree stone
Tree of Life - same as World Tree
tun -18 uinals or 360 days in the Long Count
tzompantli - skull rack
uinal - 20 kins or 20 days in the Long Count
Vacub Caquix - Monstrous Diety, Sun of the 3rd Creation
Vacub Hunahpu - Uncle of the Hero Twins
Vague Year Calendar- same as 365 Day Solar Calendar
Vision Serpent - Ancestors called up from Xibalba during bloodletting
Xbalanque - Hero Twin
Xibalba - underworld

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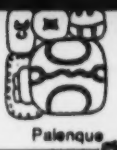
Long Count introducing Glyph

Tikal

Naranjo

Xaxchilan

Piedras Negras


Palenque

Copan

Birthday glyph

Accession Glyph

baktun= 144,000 days

katun= 7,200 days

tun= 360 days

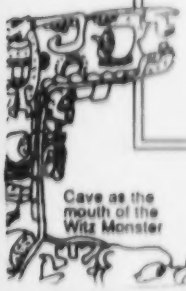
uinal= 20 days

kin= 1 day

Long Count Glyphs

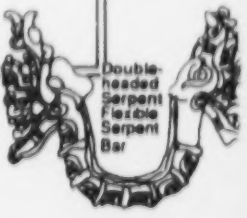
pop

Nohoch Ek, Venus


Cave as the mouth of the Witz Monster

Rigid Serpent Bar Double-headed Serpent

Cosmic Monster possibly Milky Way, from Altar 41, Copan


Double-headed Serpent Flexible Serpent Bar

Caan, the Sky

Kin, the sun

solar eclipse

the Moon

ba-balam-ma

ba-la-m(a)

Cab, the Earth

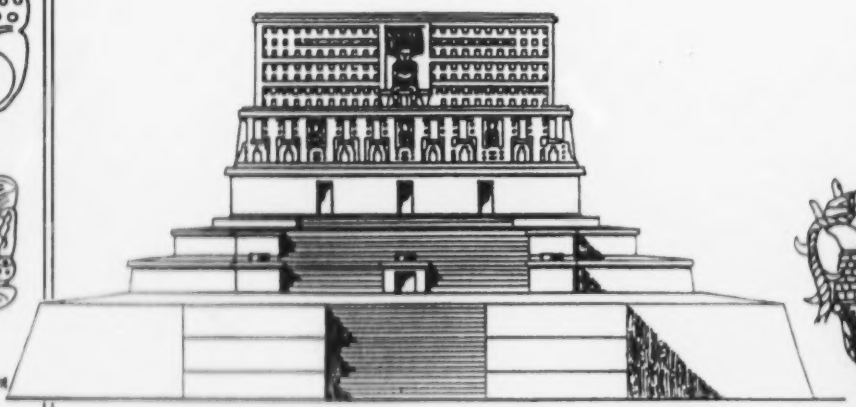
House Glyph

Ballcourt Glyph

the ART and ARCHITECTURE of the MAYA

CREATIVE WORKBOOK

by Ann Campbell
edited by Dr. John Hoag
University of Colorado



HISTORY through ART and ARCHITECTURE

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ANSWERS TO QUIZZES

Page 2
1. Tikal and Copan.
4. Palenque was abandoned by 800; andUxmal by 925
5. Chichen Itza

materialized ancestor

Page 4
(bottom right)
AD 652
AD159

Page 11
1. El Mirador
2. John Lloyd Stephens
3. Honduras
4. Ball Court
5. The Hero Twins outwitted the Lords of Death
6. 18 Rabbit, the 13th King of Copan

Page 18
1. A rope of thorns to celebrate the birth of Bird Jaguar, Shield Jaguar's son by his second wife Lady Evening Star.
2. The Vision Serpent and the ancestors.

Page 19
5. Bird Jaguar is on the right, wearing the more magnificent headdress and costume decorated with kingly emblems. He holds a decorated spear.
6. They were probably tortured and beheaded.
7. Trying to prove his royal descent from Yat Balam, founder of the dynasty.

Page 21
1. Pacal the Great and Chan Bahlum
2. Through his mother, Lady Zak Kuk
3. Pacal's mother
4. In the courtyard of the Palace

Page 24
1. Beneath theTemple of Inscriptions.
2. Pacal falling down the trunk of the World Tree into the open jaws of the Otherworld.
3. To prove his heritage from the first dynasty king
4. Corbel vaults
5. He ruled Xibalba.

Page 29
1. Puuc cities in the northwest Yucatan.
2. Uxmal
3. A Palace
4. A corbel archway decorated in the Puuc style.
5. Maya speaking people living near Mexico who brought with them Toltec belief including the sacrifice of human hearts.
6. The Opening of the Wells of the Itza.
7. An underground open well. Sacrifices to the God Chac were thrown into the cenote, such as children and pottery.
8. There were no kings at Chichen Itza.
9. Two sides played ball and the losing captain usually was decapitated.
10. Maya priests followed the movements of stars, planets and the sun and moon.
11. Kukulcan and he required still bleeding hearts.

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Vision Serpent

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DISCOVERING MAYA RUINS

In 1839 two explorers, American John Lloyd Stephens and English artist Frederick Catherwood hacked their way through the jungles of Honduras, at Copan. They discovered great buildings covered with carvings and glyphs and giant kings of stone, some fallen, some still standing. Stephens bought the ruins for $50.

Frederick Catherwood's drawing of Stela C, toppled over at Copan

What lost civilization had done them? Stephens believed the glyphs were a written language that told a history. In 1841, Stephens and Catherwood published their book, *Incidents of Travel in Central America*, about these and other Maya ruins. Soon, there were hundreds of theories about the glyphs and the people who had made them.

Frederick Catherwood's drawing of Stela N at Copan

Some people believed they were the Lost Tribes of Israel, others thought ancient Egyptians, Phoenicians, or even Chinese.

Alfred Maudslay photographed thousands of Maya stone monuments in Central America and Mexico, allowing scholars to study the glyphs. The Peabody Museum of Harvard University sent archeologists to dig.

Sir Eric Thompson, noted archeologist, believed the glyphs stood only for numbers and dates in the Maya calendar. Others were merely spiritual symbols of a peace-loving people ruled by priests. His theories prevailed until he died in 1975, when art historians and archeologists realized the glyphs were actually the written language of the Maya.

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2

MAP of MAYA KINGDOMS

Using both the time line and map do the following:

1. Two Maya kingdoms began in about 300 B.C. and lasted until A.D. 800. Which were they?

_____

Underline them in **red** both on the time line and on the map.

2. Find El Mirador and Uaxactun on both the time line and map and underline in **green.**

3. The Maya kingdoms of Yaxchilan and Bonampak started up in 50 B.C. and collapsed by A.D. 800. Find them and underline in **blue** on both the time line and map.

4. Palenque and Uxmal blossomed in A.D.250. When did they collapse?

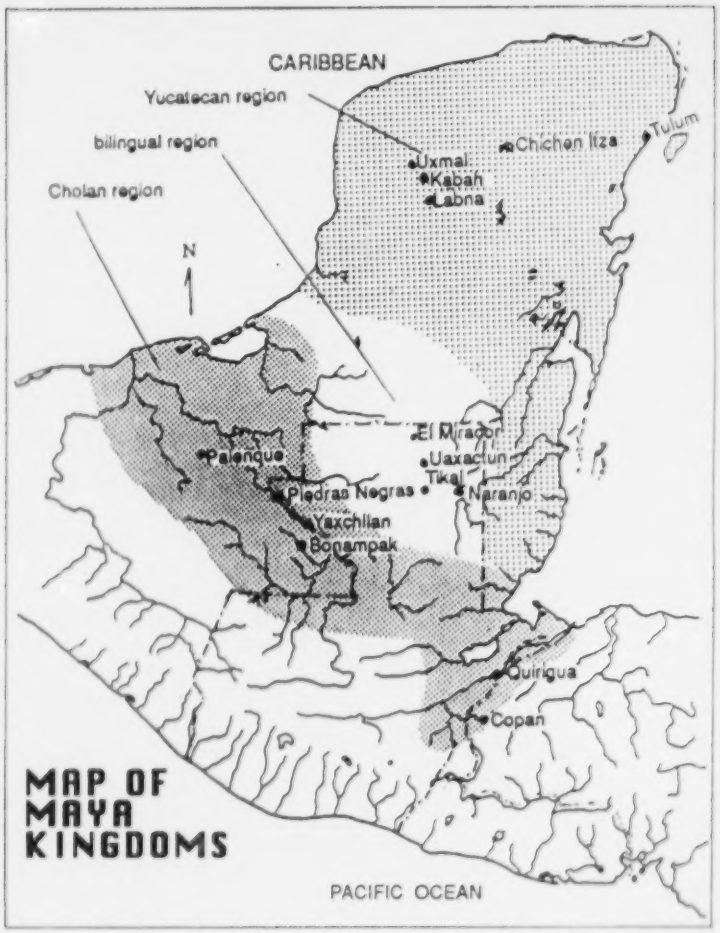
_____

Find them and underline in **purple.**

5. Which kingdom began in 50 B.C. and lasted until 1200? _____

_____

Underline in **orange** both places.



TIME LINE OF MAYA KINGDOMS

Early	Middle	Late	Early	Late	Terminal	Early	Late	SPANISH
	PRECLASSIC			CLASSIC		POST CLASSIC		CONQUEST

1000 B.C.	300 B.C.	B.C. 0 A.D.	250	600	800	925	1200	1530	1697
Early Olmec Influence	Calender, writing	Massive pyramid building	Teotihuacan Influence	Height of Maya Civilization	Classic Maya Collapse	Toltecs arrive in Yucatan	League of Mayapan		Last Maya Kingdom Falls
	Tikal	Uaxactun	El Mirador	Caracol	Cerros	Quirigua	Copan	Yaxchilan	Bonampak
			Palenque	Naranjo	Piedras Negras				
		Chichen Itza	Uxmal	Kabah	Labna	Tulum			
								Tenochtitlan Aztec Capital Falls	
								Spanish Capital at Merida 1542	

LANGUAGE and the GLYPHS

balam (a)

For many years Mayan glyphs were thought to represent numbers, spiritual ideas or were simply decorative. Only in recent years have the glyphs been deciphered. Linda Schele and David Freidal in their book, "Forest of Kings,"simplify some of the principals:

Two languages were spoken by the Maya: Yucatac and Cholan. The pronunciation was a bit different but writing was the same for both.

ba-balam (b)

Words could be spelled with signs called *logographs*, representing individual sounds as well as signs representing whole words. For example the word for "jaguar" *balam* in Mayan could be written as the head of a cat. (a)

balam-ma (c)

To make sure the reader understood which kind of big cat it was, the scribe could add the syllable sign for *ba* to the front of the jaguar head,(b) or *ma* to its rear. (c)This is called a *phonetic compliment*.

ba-balam-ma (d)

The word could also be spelled with just *consonant-vowel-consonant, ba-la-m(a)*, dropping off the final *a* sound.(d)

ba-la-m(a) (e)

Whenever a word was encirled by a hollow circle standing on three scrolled feet, the cartouche told the reader, it was a special "named" day in the 260-day calendar.(e)

Glyphs sometimes had different forms like the ornate capital letters used in a Medieval manuscript. Scribes could choose which form to use depending on how much elegance was called for. **Below are the glyphs for the different forms of the syllable *ba*.**

normal form

human head form

zoomorphic form

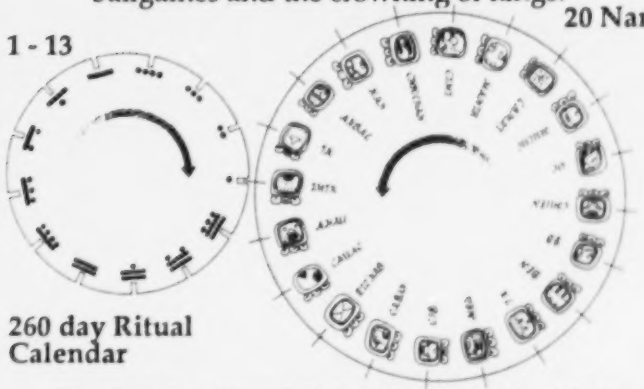
full figure form

Redraw the (b) (d) and (e) glyphs for the syllable *ba* in the word for jaguar using the human head form, the zoomorphic form and the full figure form.

(b) (d) (e)

CALENDAR

The Maya had two calendars, the Solar or Vague Year calendar of 365 days and the Ritual Calendar of 260 days. Here the numbers 1-13 mesh with the 20 named days in the 260 day calendar. Each day had a name and an omen or prophesy for the future. This Ritual Calendar acted like a fortune-telling machine guiding the lives of the Maya, their wars, ballgames and the crowning of kings.



260 day Ritual Calendar

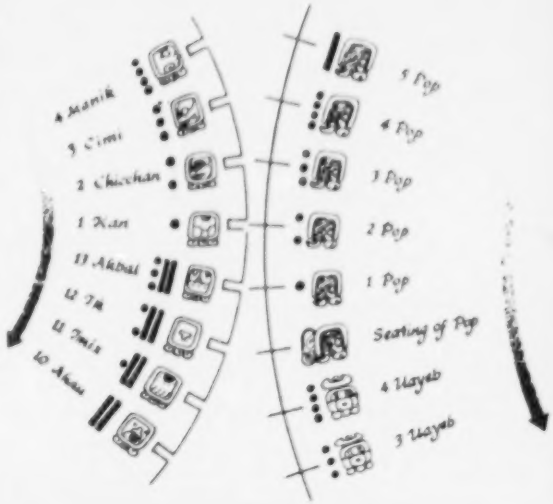
The 260 day Ritual Calendar meshed with the 365 day Vague Year or Solar Calendar. This calendar had 18 months of 20 days each with five unlucky days added on. A day in each calendar met only once every 52 years.

The Maya put Long Count dates on their monuments measured from what they believed was the beginning of the 4th and last Creation of the World. Modern scholars believe this zero date was August 13, 3114 B.C. Instead of using 365 day Vague year they used the *tun*, a 360 day year.

Long Count Cycles	**20 kins = 1 uinal (or 20 days)**
	8 uinals = 1 tun (360 days)
	20 tuns = 1 katun (7,200 days)
	20 katuns = 1 baktun (144,000 days)

In translating Maya dates Bishop Landa in the 16th century used the Julian Calendar. which lost a day every 128 years. Our Gregorian Calendar adds a day every four years (leap year). Allow + or –4 years error. For example the date of July 2, 603 would be shown as: 9.8.10.0.0 or:

9 baktuns	1,296,000 days
8 katuns	57,600 days
10 tuns	3,600 days
0 uinals	0 days
0 kins	0 days
365 ⌋	1,357,200 days
=	3,718 years - 3,114 B.C. = A.D. 603



260 Day Ritual Calendar meshes with the 365 Vague Year Solar Calendar to make the 52-year Calendar Round

Maya numbers

a dot	●	= 1
a bar	▬	= 5
	⬭	= 0
	●●●	= 3
	▬	= 10

Translate Arabic numbers into Maya numbers.

15 7 4 20 8

Calculate these dates in our Gregorian Calendar (+ or –4 years for error because of leap year). If you need more paper use large sheet.

9.11.0.0.0

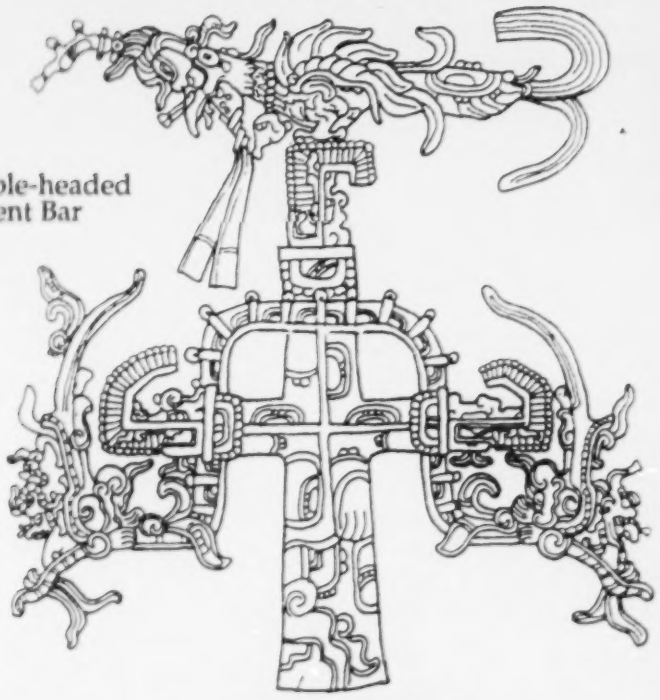
8.6.0.0.0.

MAYA WORLD
and World Tree

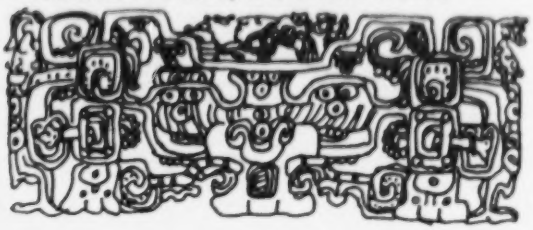
Celestial Bird

Double-headed Cosmic Monster

Double-headed
Serpent Bar



Witz ("mountain"), its cave entrance
led into Xibalba, the Underworld



Maya World

There were three layers to the Maya world. The highest was the starry arch of heaven with the double-headed Cosmic Monster, probably the Milky Way. The blood of the Cosmic Monster became rain which fell when royal sacrifices or offerings were made on earth below.

The second layer was the Human Middleworld of Earth, shown as the back of a turtle. This world was alive with rivers, swamps, mountains and caves. The caves in the mountains led into the Underworld.

The bottom layer was the dark waters of the Underworld below, called Xibalbā. At sundown Xibalbā rotated above the earth to become the night sky. In the center of the universe the gods laid three hearthstones in a triangle. At each of its four corners the Pawahtun-Bacabs, skybearers, held up the sky.

The World Tree

A great Ceiba tree ran through the center of the world holding up the sky. Its branches reached to the heavens. The trunk went through the Middle World with its roots in the watery underworld of Xibalba. This was the World Tree. When the Milky Way was in its N/S position it became the World Tree. When the Milky Way was in its E/W position it turned into the Cosmic Monster

Discussion: How does the Maya World compare with the way we look at the world? How does the Maya cosmology (idea of heaven, earth and underworld) compare to other ancient religions ie Greek, Egyptian, Buddhism, Hinduism, Judism, Christianity? Choose one and discuss.

6

THE POPOL VUH Bible of the Quiche Maya

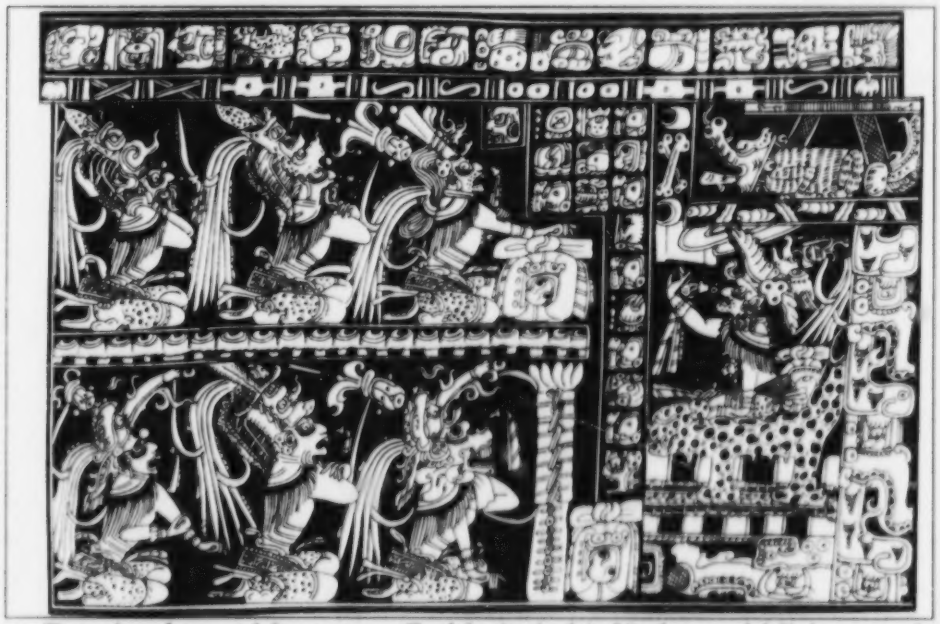
The Quiche Maya lived in the Highlands of Guatemala. The Maya believed there were two Hero Twins called Hunahpu and Xbalanque These Hero Twins were the children of earlier twins called Hun Hunahpu and Vacub Hunahpu who were called down to Xibalbá, the Underworld, for making too much noise while playing the ballgame. These earlier twins were tricked, defeated and their heads chopped off by the Lords of Death.

The Lords of Death hung the skull of Hun Hunahpu in a calabash tree. But the skull was found by Lady Blood, the daughter of a Lord of Death. When she put out her hand the skull spit into her hand which made her pregnant. Fearing her father's anger the girl fled from Xibalbà to the Middle or Human world. There she found the grandmother of the dead twins who helped her give birth to the new Hero Twins, Hunahpu and Xbalanque.

When the Hero Twins grew up, they too played the ballgame, disturbing the Xibalbans who called them to come down to Xibalbā for making too much noise. The Lords of Death set up a series of impossible tasks for the Twins to do. The Twins played ball by day and were tested each night. But the Twins outwitted the Lords of Death.

They kept two cigars lit by putting fireflies on the tips and a torch lit by using a macaw's tail as the glow of the torch. They survived Razor House by promising the moving stone blades, the flesh of animals. They survived the freezing wind and hail of the Cold House, the hungry jaguars in the Jaguar House and the fires in the Fire House, each time by their wits.

Illustrate any part of the Popol Vuh story. Make the Lords of Death as evil and grotesque as possible.



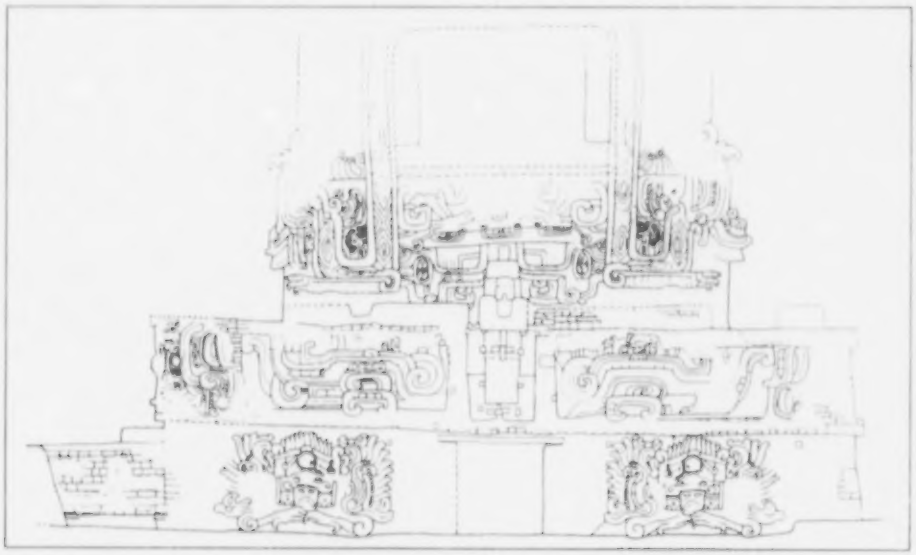
Drawing from a Maya vase. God L sits in his Underworld Palace on the right smoking a cigar. Facing him are six other Lords of Death, including Chac Xib Chac and Jaguar God.

In the Bat House they hid inside their blowguns. But when Hanahpu peeked out a bat knocked off his head. Xbalanque replaced it with a squash which he carved to look like his brother's face. The next day Xbalanque used his brother's head as the ball. He kicked the head into the grass just as a rabbit jumped out and the Lords of Death followed the rabbit. Then he put his brother's head back onto his body. When the Lords of Death kicked the squash it splattered into bits on the court.

As a last resort the Lords of Death burned the Twins and ground up their bones and threw them into the river. But the Twins returned first as catfish and then as humans. Again, they tricked the Lords of Death. Xbalanque decapitated and dismembered his brother Hunahpu and brought him back to life. The gleeful Lords of Death wanted to do it too. The Hero Twins decapitated and dismembered the Lords of Death, but did not bring them back to life and so defeated them by trickery.

Once they had defeated the Lords of Death, Hunahpu and Xbalenque resurrected the first Hero Twins, their father and uncle. On the left, Hun Hunahpu the first Twin, comes up through the cracked shell of the turtle or earth to become the Maize God. The Hero Twins also defeated the monstrous Vacub Caquix, the arrogant Sun of the Third Creation. (We are now in the Fourth Creation.)

In the end the Hero Twins rose up through the surface of the earth to the sky where they became sun and moon. Each Maya king believed that he was the earthly form of the Hero Twins. Just like Hunahpu and Xbalanque he would never really die. Resurrection and rebirth came through sacrifice especially decapitation. The place of confrontation was the ball court where life and death, victory and defeat, rebirth and triumph were played out.



Vacub Caquix, Monstrous Diety, who was the arrogant Sun of the Third Creation, the one before this one, from the Rosalila Structure discovered in 1991 beneath the Acropolis at Copan.

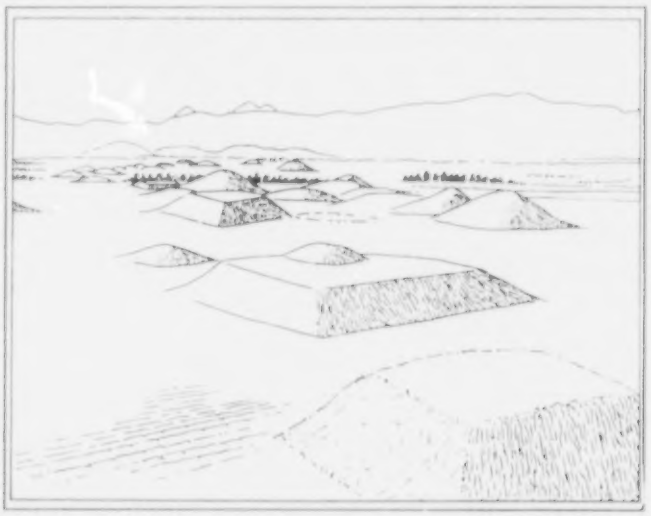
8

EARLY MAYA SETTLEMENTS Late Preclassic

Between 2500 B. C. and 1000 B.C. the earliest Maya people settled near the coast of the Yucatan Penninsula of Mexico, along the rivers of what is now Guatemala and Honduras and in the highlands of Guatemala near the Pacific coast. They planted corn and beans and lived in villages ruled by chieftains.

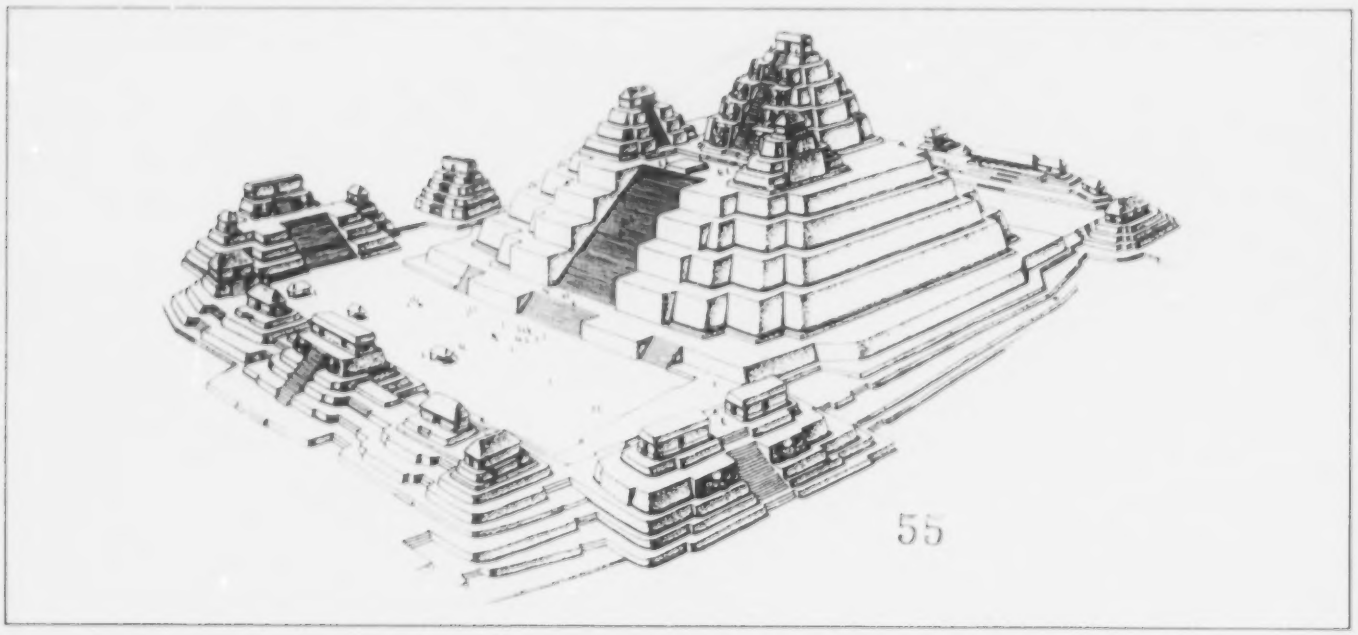
Between 300 B.C. and A.D. 200, in what we call the Preclassic period, the villages grew into larger kingdoms of 10,000 or more people. One of these Preclassic kingdoms was **Kaminaljuya** near today's Guatemala City. Temples were built on top of these mounds. Much of it has been bulldozed by modern developers.

Below is a reconstruction drawing of how **El Mirador** may have looked in 50 B.C., Preclassic times. Located in the Peten, the lowlands of northern Guatemala, El Mirador, may have been the largest Maya kingdom. It was surrounded by bajos or swamps. By A.D. 50 it was abandoned.



Kaminaljuya near today's Guatemala City, Preclassic site

Using the drawing below, recreate in three dimensional clay one of the groups of platform temples.



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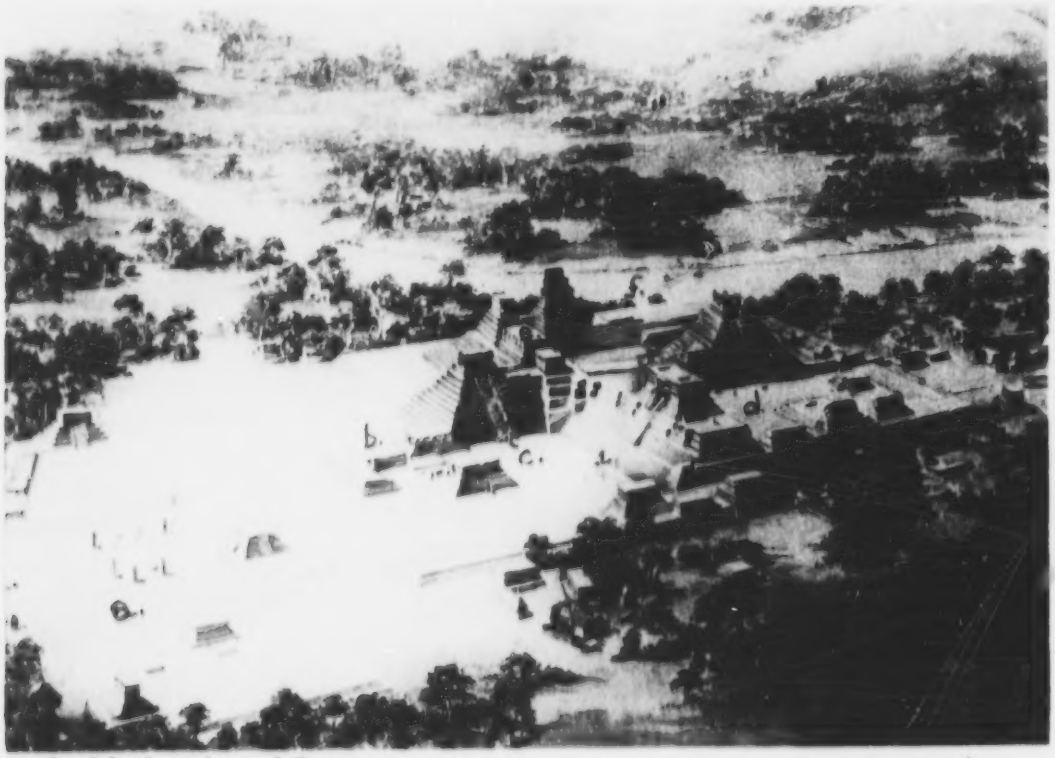
How did they build **El Mirador**? Limestone lies beneath the floor of the jungle. Axes of flint or obsidian were used to cut the limestone blocks which were still soft while in the ground. Limestone hardened in the air.

COPAN 250 B.C.-A.D. 800

Along the Motagua River in Honduras lie the magnificent ruins of the Kingdom of Copan. In 426 Yax Kuk Mo' became the first king in a long dynasty of 16 kings. Below is how Tatiana Proskouriakoff, art historian and architect, believed Copan may have looked in the Late Classic Period, A.D. 800. The Motagua River flows nearby, but today it has moved closer to the ruins, washing some of them away. To the left is the Great Plaza (a), to its right is the Ball Court (b) in the center is the Hieroglyphic stairway (c), while on the right is the Acropolis with pyramids and temples enclosing the West Court (d). Temple 22 and the East Court are at (e) and the Motagua River at (f). There are 14 altars and 20 stelae. 12 of these are over-lifesize stone kings representing 18 Rabbit.



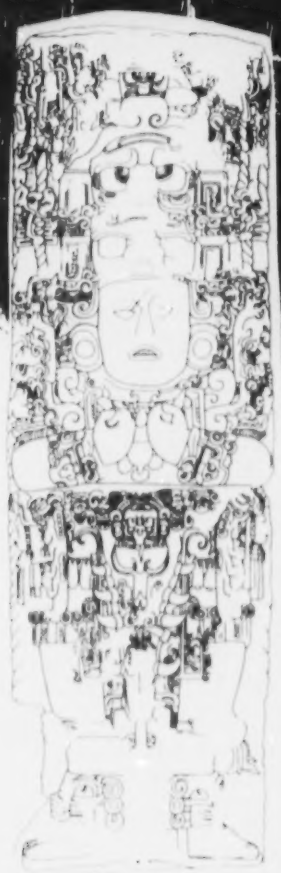
Color code this drawing of Copan.

a. Color the **Great Plaza - yellow.**
b. Color the **Ball Court - red.**
c. Color the **Hieroglyphic Staircase - light brown**
d. Color the **Acropolis and West Court- green**
e. Color **Temple 22 and the East Court - orange**
f. Color the **Motagua River - blue**

18 COPAN Late Classic, 426-800

When you enter Copan you are greeted by huge stone kings covered with designs and glyphs. Who are they? They are 18 Rabbit, 13th king of Copan in the Yax Kuk Mo' dynasty. During his 43 year reign he had them carved out of volcanic rock and placed in the Great Plaza. 18 Rabbit did more to beautify Copan than any other king. He rebuilt the Acropolis enriching the pyramid and temples with sculptures.

On May 3rd, 738 while 18 Rabbit was out looking for victims for sacrifice to celebrate his new ballcourt he himself was captured and beheaded by Cauac Sky of Quirigua, a smaller rival kingdom. 18 Rabbit was 62 and at the height of his reign.



18 Rabbit in the Great Plaza at Copan

Create your own tetun or "stone tree." Recreate your own verison of 18 Rabbit. Roll out clay into a thick column, now carve away what you don't want. Don't add any clay, just cut it away as if you were working in stone.
With a pointed tool carve out glyphs and symbols copied from the drawing on the left. Create your own symbols as well.

These tetuns or stone stelae were once painted. 18 Rabbit, above in the foreground still has some red paint left on him.

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As you have learned from the Popol Vuh, the ball court was vital to the kings of Copan. While there are 3 ball courts at Copan, the most magnificent is the one redone by 18 Rabbit. This drawing of Tatiana Proskouriakoff shows how it might have looked in A.D. 700, during his reign. Probably the ball was bounced off the slanting side walls by the players who were not allowed to touch the ball with their hands or feet. In ritual games the losing captain was decapitated, just like the Hero Twins. A temple on each side overlooks the ball court. A newly restored scarlet macaw fastened to the temple hovers over the ball court and stone macaw heads are the ball court markers.

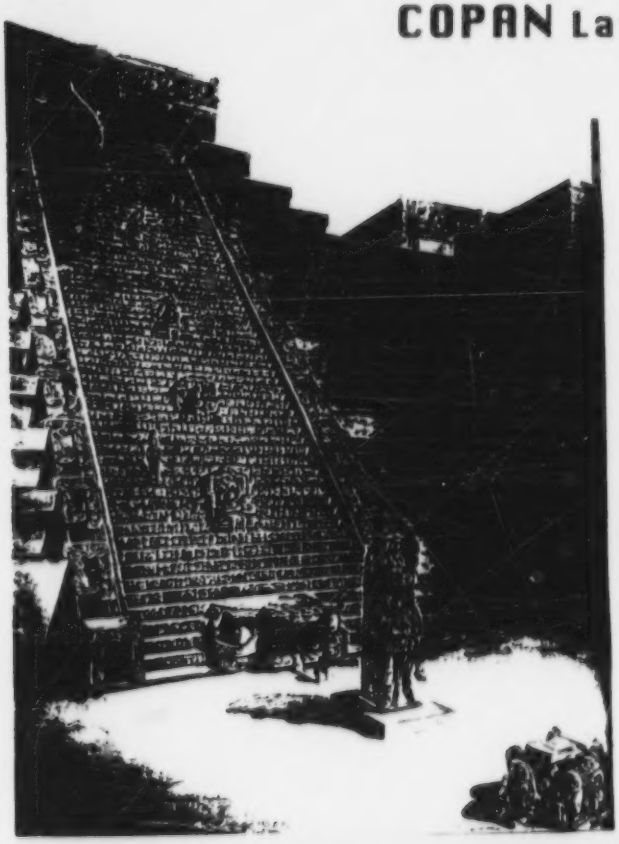
A giant stela of stone representing 18 Rabbit stands watching at one end which was placed there after his death.

Reconstruction drawing of the Ball Court at Copan by Tatiana Proskouriakoff

QUIZ

1. The largest Preclassic site in the Peten, northern Guatemala, that flourished between 50 B.C. and A.D. 50, was _____.
2. Who discovered the ruins at Copan and bought them for $50?_____ _____..
3. Copan is in which country today?_____.
4. The place of confrontation was _____ , the arena in which life and death, victory and defeat, rebirth and triumph played out.
5. When the Lords of Death confronted the second set of Hero Twins, Hunahpu and Xbalanque, who outwitted who and won?_____.
6. Who do the stone kings represent that greet you when you enter the ruins of Copan? _____.

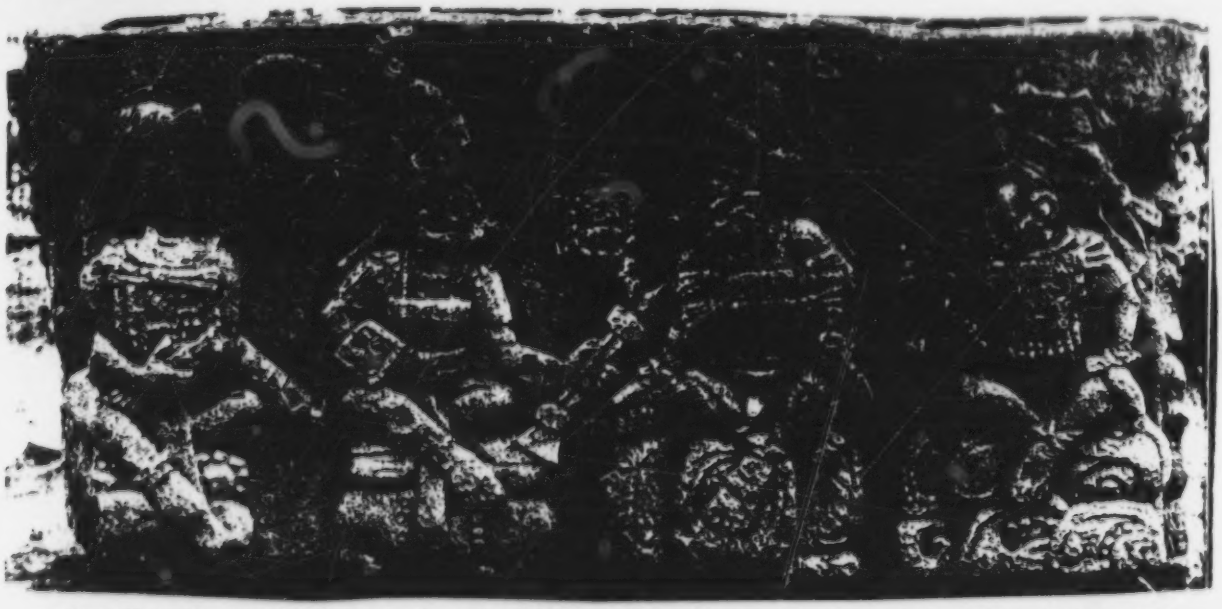
COPAN Late Classic, 426-800



Smoke Shell, 15th God/King of Copan, built the Hieroglyphic staircase in 756 to overcome the disgrace of the capture and death of 18 Rabbit. Its 63 steps are covered with glyphs that record the dates of each of the 5 god/kings before Smoke Shell.

On the steps leading up are lifesize sculptures of these 5 kings.

1. Compare the rule of a Maya God/King and that of the President of the United States.
2. How important is the heritage of a President? How important was the heritage of a Maya king?
3. How do we celebrate or dedicate an important building or ballpark? How did the Maya celebrate or dedicate a temple and/or ballcourt?



Altar Q, 776. Yax Kuk Mo', first God/King of the Copan Dynasty, left center, (426 A.D.). passes his scepter to Yax Pac, the 16th and last God/King of Copan, right center. (820 A.D.)

Model in the round one of these figures in clay, (not in relief as they are shown here) Try to put in all the details you can, including the glyph on which he is sitting.

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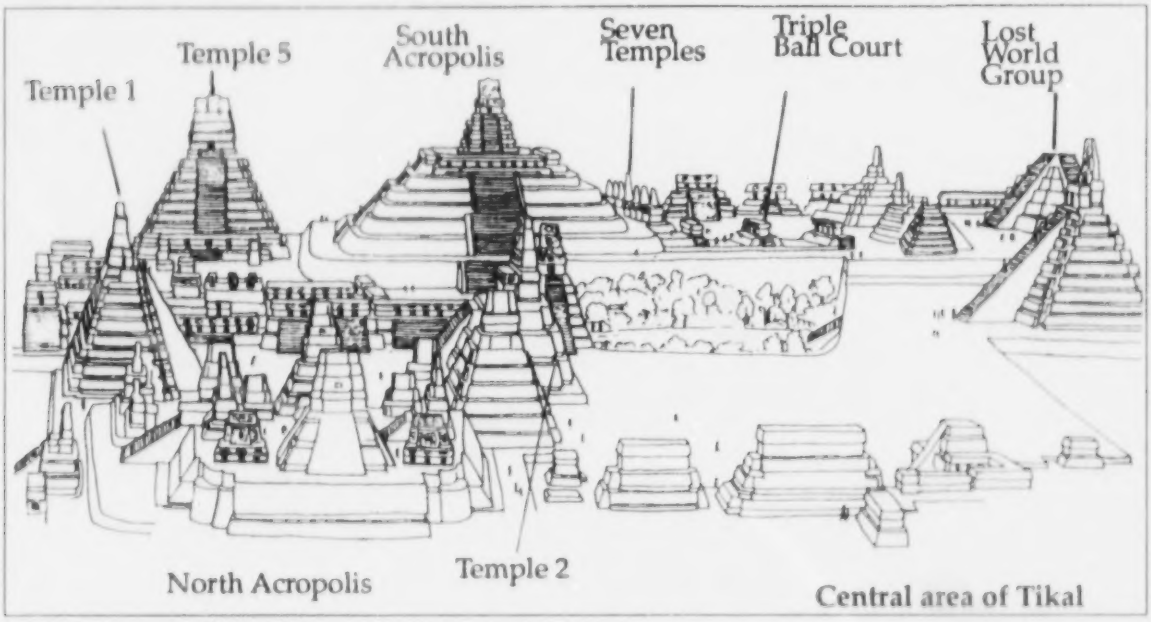
TIKAL Late Classic, 378-888

Many miles north and east of Copan is the kingdom of Tikal. In 600 B.C. Tikal was only a village. By A.D. 378 it had grown into a large city covering 222 square miles, ruled by King Great Jaguar Paw. Today, its six temple-pyramids look like towering skyscrapers!

The Great Plaza is the heart of Tikal. The Great Jaguar Temple 1 looks across at Temple 2. Rising on its right is the Acropolis, an incredible complex of buildings that rise one on top of another. Each new king enlarged or built on top of earlier buildings. Tombs of earlier kings lie beneath them.



Central area of Tikal

Color code the buildings at Tikal:

1. Color **Temple 1 red.**
2. Color **Temple 2 green**
3. Color **Temple 5 orange.**
4. Color the **North Acropolis yellow**
5. Color the **South Acropolis light brown.**
6. Color the **Seven Temples purple.**
7. Color the **"Lost World " blue.**

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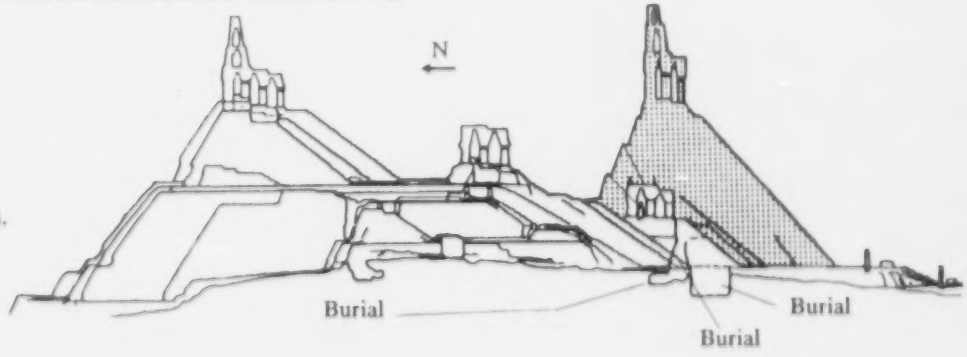
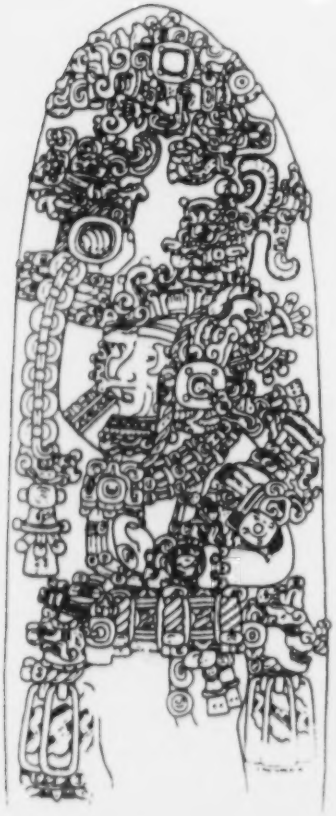
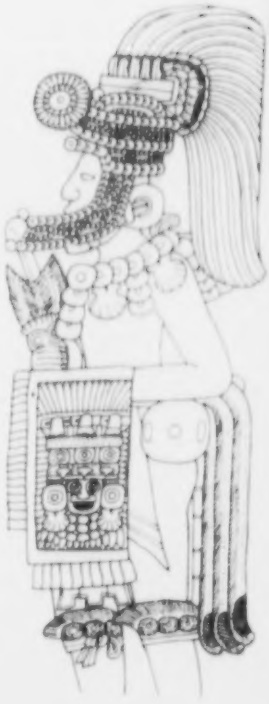
Cut-away View of the North Acropolis showing how structures were build on top of each other by different kings. and their burials underneath.



TIKAL Late Classic 378-800

In 378 **Great Jaguar Paw was king of Tikal** . Tikal had become rich trading obsidian, pyrite and jade. Traders from Teotihuacan, in the Valley of Mexico, also came to Tikal bringing with them the *atlatl*, a new age type spear thrower. When Great Jaguar Paw saw the power of this new weapon, and when the planet Venus was in the right position, he ordered his brother **Smoking Frog** to attack Uaxactun, another Maya kingdom 2 days' march away. Using the *atlatl*, Tikal warriors easily defeated the Uaxactun warriors. Probably the king and the ranking nobles of Uaxactun were brought back alive, tortured and decapitated. Smoking Frog became the new ruler of Uaxactun.

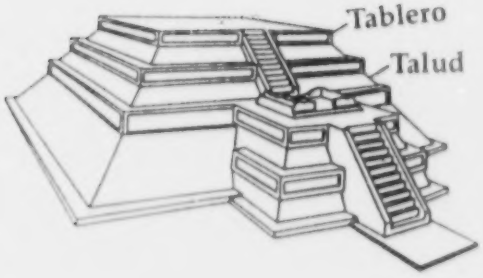




To celebrate the victory over Uaxactun, Great Jaguar Paw built a hundred foot tall platform pyramid in what archeologists call the **"Lost World" Group at Tikal.** It was built in Teotihuacan style with molding along the steps that is called *talud/tablero.* (on page 13, color it blue). Also on page 13 **the Plaza of the Seven Temples** is next to the "Lost World" Group. (color it purple)

Stela 31, shows Stormy Sky grandson of Great Jaguar Paw as he is crowned king of Tikal. He holds up his headdress.

Side of Stela 31, shows Curl Snout , nephew of Smoking Frog, who wears his uncle's battle dress, the balloon type headdress and shell necklace of Teotihuacan warriors. He carries the spear thrower, the *atlatl*, and a shield showing the goggle-eyed Rain God Tlaloc of Teotihuacan.



Draw a sample of talud/tablero here

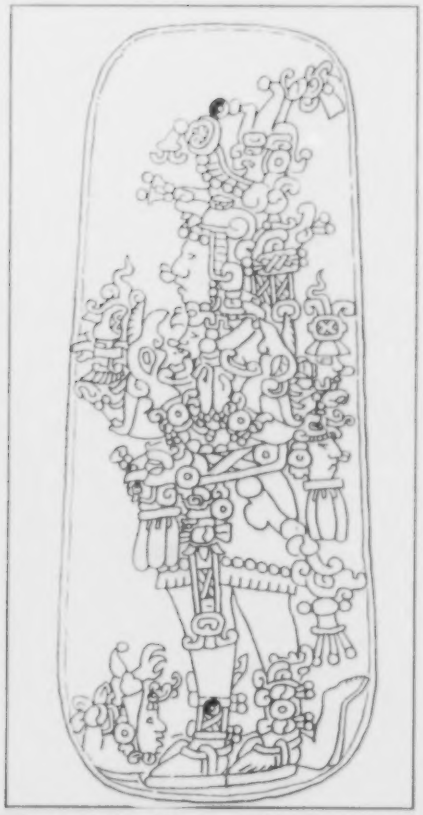
Talud /Tablero Style Construction from Teotihuacan

TIKAL Late Classic 378-800

The kings of Tikal waged many wars against the Maya kingdoms nearby. But in 562, Tikal itself was defeated by Caracol, another city state. All building stopped at Tikal. It was not until Ah Cacao became king in 682 that Tikal regained its power. He captured a high ranking noble of Calakmul. Ah Cacao rebuilt the North Acropolis, the Great Plaza, the Great Jaguar Temple 1 and Temple 2, which is the way you see them today.

The temple on top has 3 small rooms, roofed over with corbel vaults. A corbel vault is made by stone blocks that are gradually moved closer and closer together until they join at the top. The entire pyramid temple is topped by a beautifully carved roofcomb.

The Great Jaguar Temple 1, built by Ah Cacao in 695. His tomb lies beneath it. It's massive tallness allows it to rise high above the jungle and be seen for miles.



The Leiden Plate, a Maya Lord tramples a prisoner underfoot

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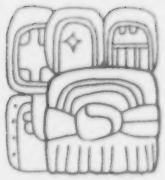
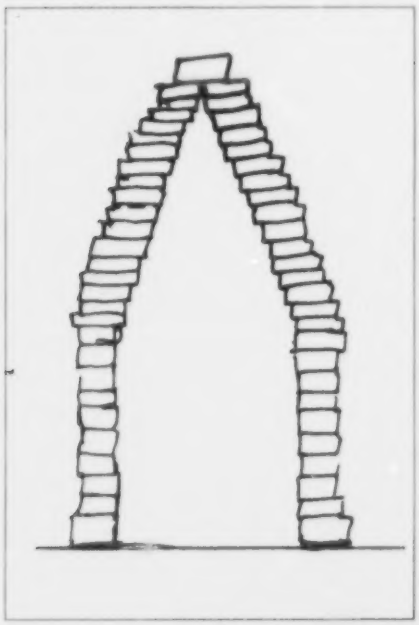
Draw a Maya Lord trampling a prisoner underfoot, or draw a miserable **captive.**

A captive bound with ropes and stripped of his battle dress.



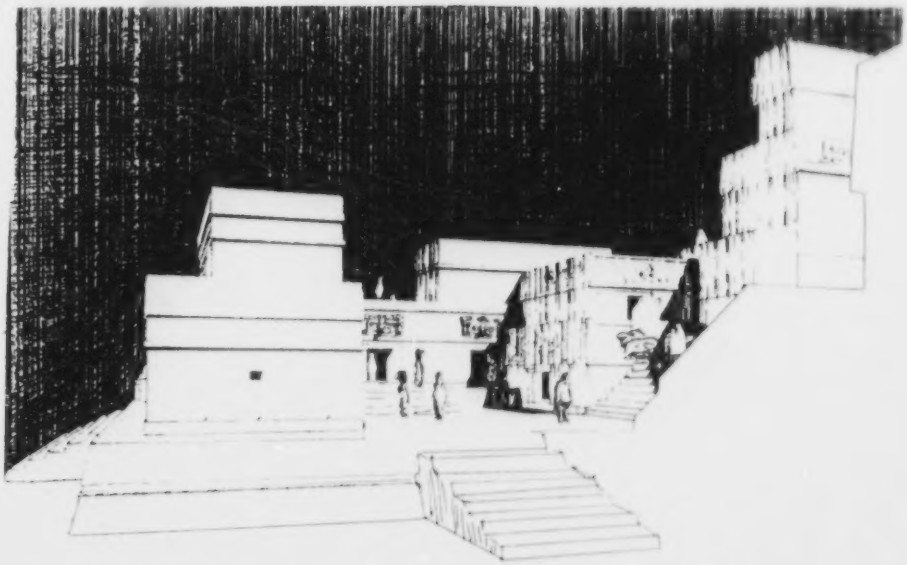
Glyph of Tikal

Corbel vault
A corbel vault is formed by gradually placing building blocks closer and closer together until they meet at the top. This creates a very narrow vault, and therefore a narrow room. A corbel vault cannot be placed over a wide area or it will fall, but it can be built over a long, narrow room. The vault was sometimes reinforced by a wooden cross beam.



corbel vault

Create a corbel vault: Use sugar cubes, sugar wafer cookies (rectangles), popsicle sticks or even make rectangular building blocks out of clay and let them dry. First build up a vertical wall on each side. Then start your corbel vault by gently moving the building blocks, inches at a time, towards the center, on each side Continue until the blocks come together at the top, You will have created a corbel vault.



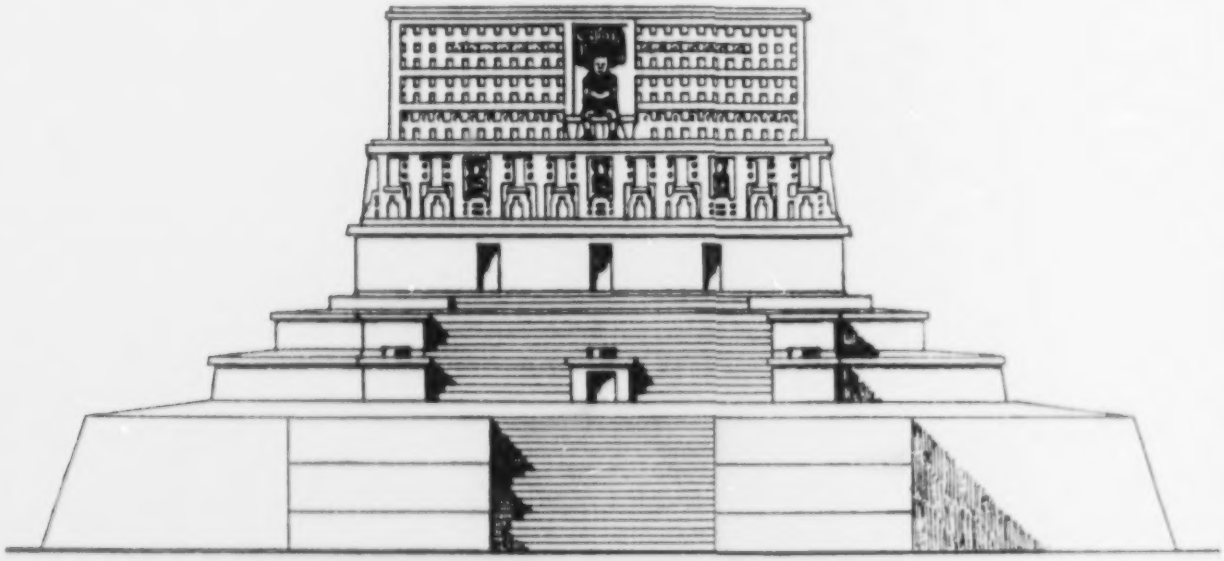
This is reconstruction drawing of the **Palace** overlooking the Great Plaza. It had many courtyards, apartments and terraces at different levels. The apartments were roofed over with corbel vaults which do not show in this drawing.

YAXCHILAN Late Classic, 320-800

Yaxchilan

West of Tikal in the deep jungle on a bend of the Usamacinta River lies Yaxchilan, a once powerful Maya kingdom. Broad terraces are cut into the high hills that rise above the river. On the highest summits are temples with carved roofcombs. Dugout canoes are still tied along the river's edge.

In 320 Yat Balam was crowned king, the founder of a long dynasty of kings at Yaxchilan that remained unbroken until it was abandoned 500 years later.



This is a **reconstruction drawing of how Temple 33** may have looked in AD 500. The roofcomb on top is tall and beautifully carved. Try to picture visiting dignitaries from Palenque, Tikal and Bonampak in brilliant costumes and feathers standing on the steps.

RESEARCH and DISCUSS:

1. What must it have been like to live in the 6th century in Yaxchilan, Tikal or Copan? If you were a peasant woman, what would your duties have been? If you were a queen or nobleperson would your duties have been the same? Which would you prefer?
2. Most of the relief carvings show men in the roles of triumphant warriors or abject captives about to be decapitated. Some captives were cruelly tied into a ball and kicked down the temple/pyramid steps. Read the Popol Vuh to find out why.
3. How did the farmers farm? Research "raised earth farming," how did it work and was it enough to feed the Maya population?
3. Who were the scribes and what was their role in society?

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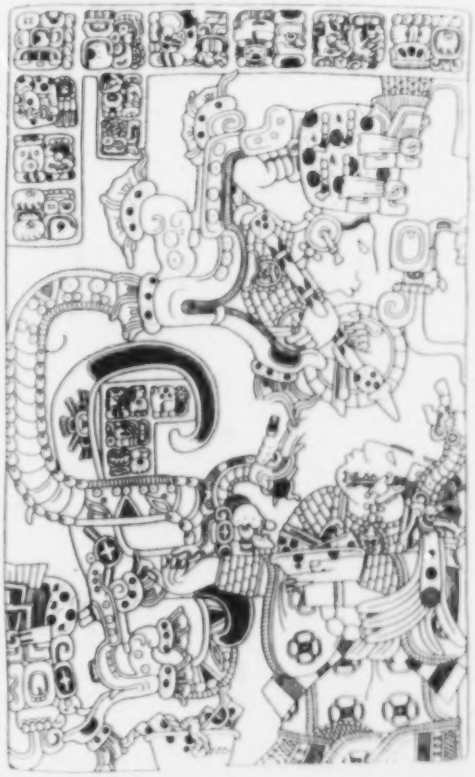
YAXCHILAN Late Classic, 320 -800

Shield Jaguar, one of Yaxchilan's great kings, was crowned in 681. Below on the left, Shield Jaguar holds a torch for his principal wife, **Lady Xoc as she pulls a rope of thorns through her tongue.** This was to celebrate the birth of Bird Jaguar, Shield Jaguar's son by his second wife, Lady Eveningstar, from Calakmul. Lady Xoc had to do the bloodletting because her royal bloodline was superior to Lady Eveningstar's.

Lintel 24 on Temple 23 at Yaxchilan

Below on the right, **Lady Xoc** in an ecstacy of pain, gazes up at the Vision Serpent rearing up above her head as she calls forth the ancestors to witness her husbands accession to the throne. But Lady Xoc had her revenge. Her relatives kept Bird Jaguar, Lady Evening Star's son, from becoming king for10 years after Shield Jaguar died at age 93.



Lintel 25 on Temple 23 at Yaxchilan

1. In Lintel 24 what is Lady Xoc pulling through her tongue and why?

_____

_____.

2. In Lintel 25 what has Lady Xoc seen?_____

_____

3. Color code the **Vision Serpent green.**
4. Color **orange Yat Balam**, the founder of the Yaxchilan dynasty whose head and shoulders are emerging from the serpent's jaw.
5. Color his **shield and spear purple**.
6. Color **red the bowl** that holds the blood-soaked papers and rope of thorns.

YAXCHILAN Late Classic 320-800

Yaxchilan

When Bird Jaguar finally become king on May 3, 752, he created many sculptures trying to prove his rightful heritage.

Bird Jaguar built many buildings at Yaxchilan. Each temple was decorated with graphic sculptures above the doorways, each one proving his royal descent from Yat Balam, the founder of the dynasty.

Bird Jaguar

Lintel 8 from Temple 23. Bird Jaguar and Kan Toc with their battle captives, "Jewelled Skull" and friend. In this relief carving Bird Jaguar is the conquering king. It was one of the many relief carvings to prove he was the rightful king and descended from Yat Balam, founder of the dynasty.

1. Circle in **red** the glyph for Bird Jaguar in the relief above.
2. Circle in **blue** the glyph for Yaxchilan.
3. Find and color **yellow** the glyph that is the same as the mark on Jewell Skull's thigh.
4. Color in **green** the entire background so that the figures and glyphs stand out.
5. Which do you think is Bird Jaguar and why?_____
_____
_____
6. What do you believe happened to these captives?_____
_____
7. What was Bird Jaguar trying to prove?_____
_____

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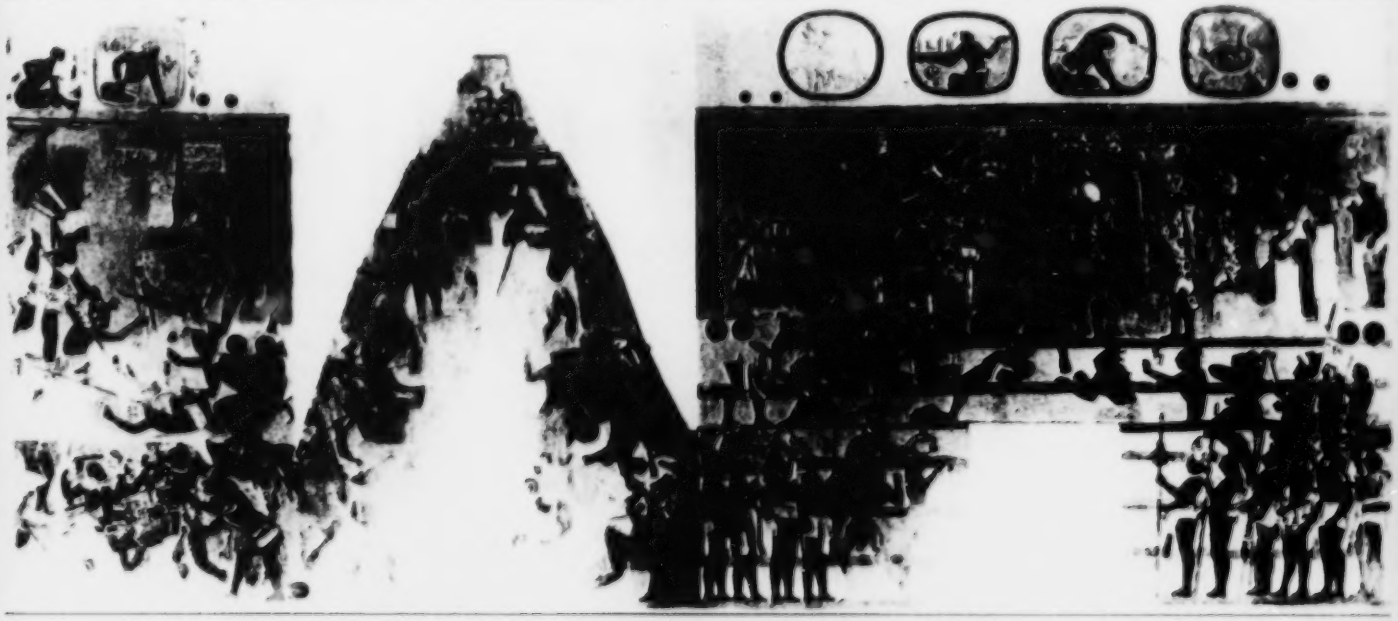
BONAMPAK Late Classic 400-800

Bonampak lies south of Yaxchilan on a tributary of the Usumacinta River. On the walls of Temple I, murals were painted to celebrate a young heir to the throne. In the first room was the Presentation of theYoung Heir, not shown here. Probably the young boy never became king because by 800 Bonampak was abandoned.

In the second rooom , see below, the King of Bonampak Chaan-muan, stands on top of a high platform dressed in a jaguar skin. Dignitaries stand on either side. An important prisoner, exhausted from torture, sprawls on the steps pleading for his life. On the steps below him,prisoners are having their nails torn from their fingers.



Mural at Bonampak, Temple 1, 2nd Room c 790s

In the mural above from Bonampak, the figures of the captives have been tortured beyond endurance. Their bodies express their agony. Today, our world is frought with wars, muggings, terrorist attacks and so on, leaving people in an equal state of pain. **Create a design for a mural** where the figures in your mural express fear, pain, agony, terror, anger or any other emotion you choose. Just like the exhausted figure on the top step, the body language of the people you draw should tell of their emotions. Fill your design with colors that express the mood of the painting.

Temple 1, First Room, c790

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PALENQUE Late Classic c400-800

Pacal the Great

Palenque was once a prosperous Maya city teeming with people with magnificent temples, a pyramid, palace and ballcourt built among the hills in a lush rainforest.

The two greatest kings of Palenque were Pacal the Great, whom you see above, and his son Chan-Bahlum. Pacal's line to the throne did not come through his father, but through his mother, Lady Zac-Kuk, who ruled as king.

Lady Zac-Kuk's grandmother had also ruled as king. Even after Pacal accended the throne at the age of 12 in 615, Lady Zac Kuk continued to rule as regent for 25 more years.

Lady Zak Kuk handing Pacal his crown

A sprawling Palace with a tall watch tower overlooks Palenque. A stairway climbs up inside the tower which was probably used as an observatory.

Along the walls of some of the inside courtyards are sculptures of captives. Each one has one hand raised to the opposite shoulder in submission. It is believed that captives may have been kept here for torture and sacrifice.

Captives in Submissive pose

1. Who were the two greatest kings of Palenque?_____

2. How did Pacal come to the throne?_____

3. Who was Lady Zak Kuk?_____

4. Where were captives kept at Palenque for torture and sacrifice?_____

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PALENQUE Late Classic c400-800

Pacal the Great

On the heavy stone lid of his sarcophagus, artists drew Pacal falling down the trunk of the World Tree into the open jaws of the Otherworld.

Around and above the stone coffin Pacal had his workmen build a giant pyramid 65 feet high. On the top he placed the Temple of Inscriptions.

Because Pacal's claim to the throne came through his mother instead of his father, he had to carefully prove that he was descended from the first god/king of Palenque. When Pacal was 70 years old he began to build his tomb. A huge block of limestone was set into a pit. This was to be Pacal's coffin or sarcophagus. Around the edges of the sarcophagus, he showed his mother, Lady Zac-Kuk as the First Mother of the Gods.

The lid of Pacal the Great's tomb beneath the Temple of Inscriptions, 683

On the drawing of the relief carving on Pacal's sarcophagus lid on the right :

1. Find and color the World Tree of Life **green.**
2. Color the Celestial Bird on top, **blue.**
3. Color the Double-headed Celestial Serpent **orange.**
4. Color the open Jaws of the Underworld into which Pacal falls, **yellow.**
5. **Research other views** of death and afterlife (Egyptian, Christian, Jewish, Aztec or Buddhist, etc.) and compare them to the Maya view. Try to find artwork to illustrate these views.
6. Choose one and illustrate it yourself.

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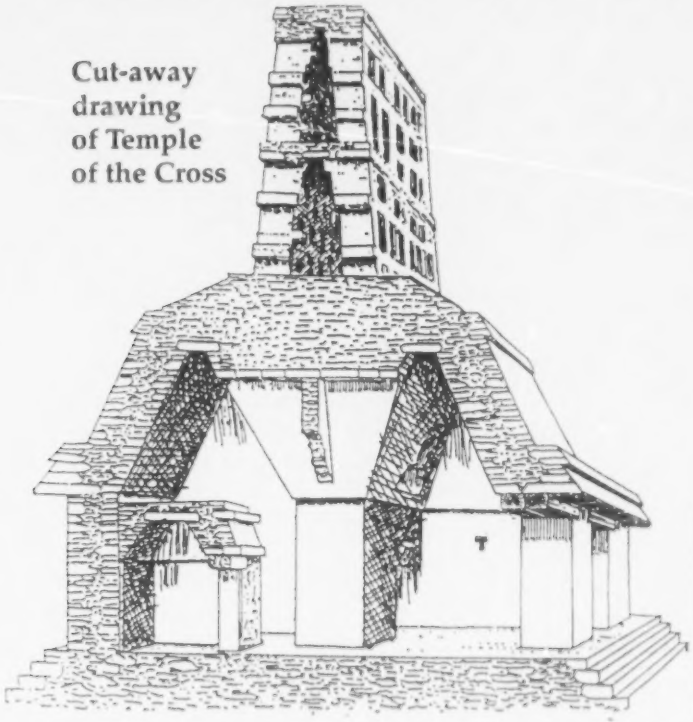
PALENQUE Late Classic, c400-800



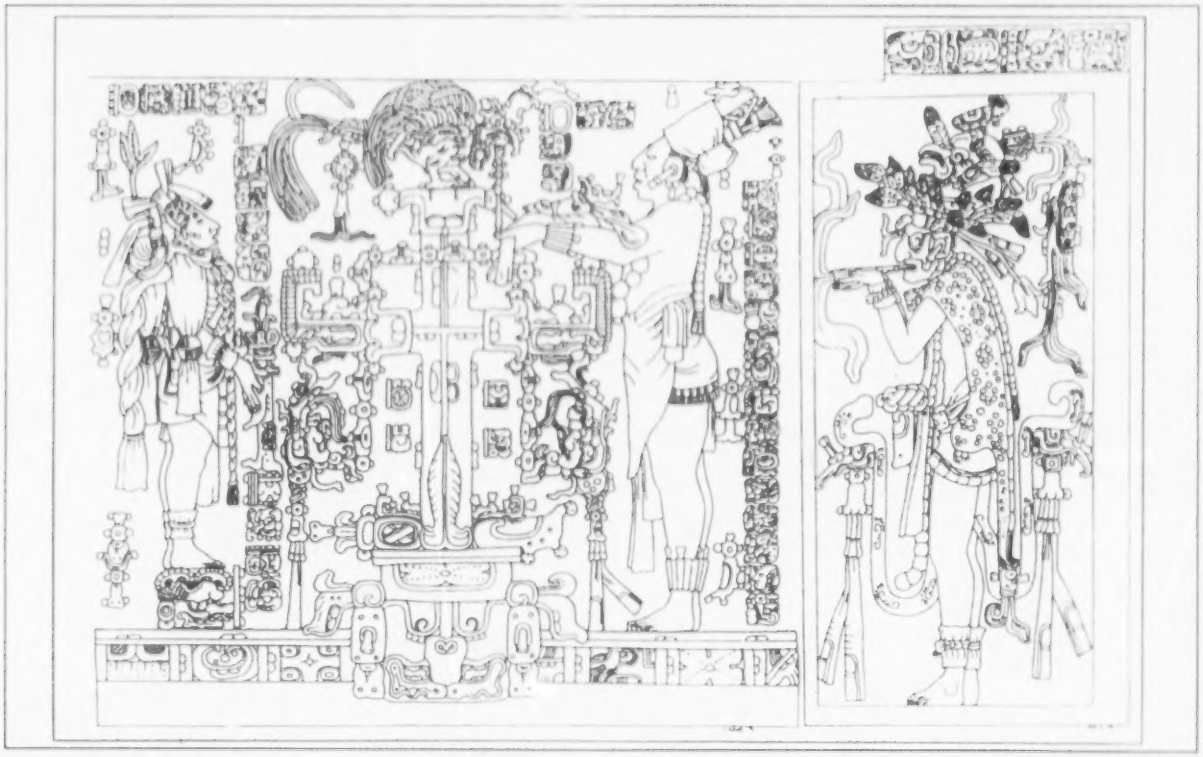
Cut-away drawing of Temple of the Cross

When Pacal's son, Chan Bahlum, became king, he too had to prove he was a god/king and descended from the first Palenque king . Chan Bahlum built the Temple of the Sun, Temple of the Cross and Temple of the Foliated Cross.

Each temple rests on a stepped platform with stairs leading up the front. Each temple roof slopes inward allowing the vaults inside to be wider.

This cut-away drawing of the Temple of the Cross shows the corbel vaults and its roof comb.

Using the cut-away drawing on the left **make a model of the roof comb** on the Temple of the Cross with its corbel vaults. Use paper, clay, popsicle sticks, plastic or even papier maché.



Chan Bahlum stands on the right with Pacal, now dead, on the left. In the center is the World Tree with the Celestial Bird on top.

God L smokes his cigar. He is frail and bent with age wearing a mythological bird on his headdress.He ruled Xibalba.

Using ideas from his headdress **design your own.**

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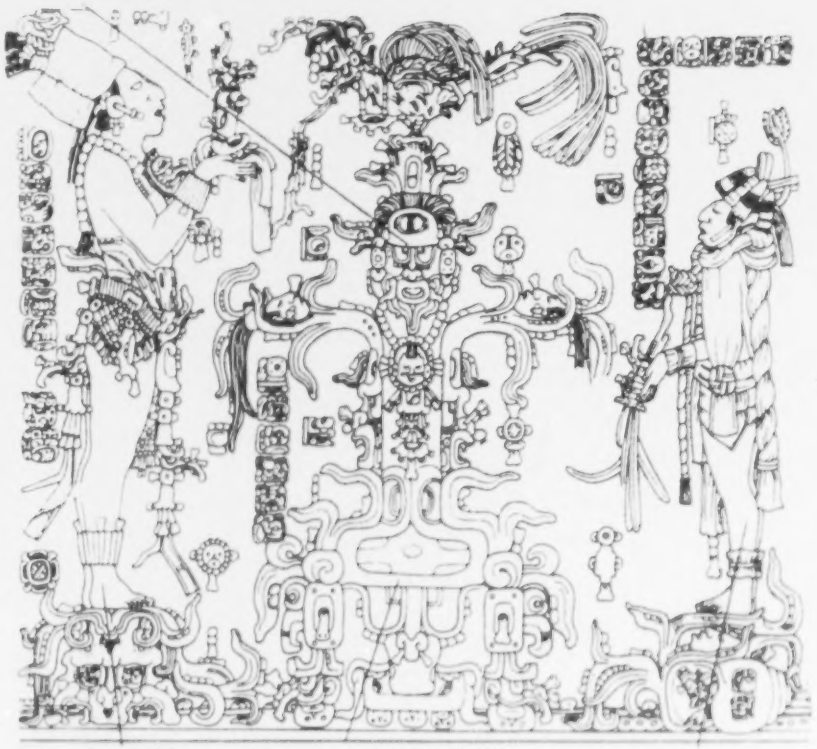
24 PALENQUE Late Classic c400-800

In the sanctuary of the Temple of the Foliated Cross, Chan Bahlum stands on top of a witz mountain while Pacal stands on the right. Pacal is shown smaller than Chan-Bahlum because he is dead.

the Foliated Cross



Chan-Bahlum Kan-cross Waterlily Monster Pacal

1. Color code **blue** the Celestial Bird perched on top of the foliated cross.
2. Color **green** the Double-Headed Vision Serpent with the two heads of the ancestors.
3. Color **yellow** the Waterlily Monster.

QUIZ

1. Where did Pacal the Great build his tomb?_____
2. What did Pacal put on the lid of his stone coffin?_____
3. Why did Chan-Bahlum build the Temple of the Sun, the Temple of the Cross and the Temple of the Foliated Cross?_____
4. What is the construction of the Temple of the Cross?_____
5. Who was God L?_____

Palenque, along with Copan, Tikal, Uaxactun, Yaxchilan and Bonampak reached their full glory in the late 700s. But in the 100 years that followed, these kingdoms began to collapse. Long standing alliances, along with the power of kings, began to break down. Entire forests were cut down to make lime for stucco, leaving the soil eroded. Food became scarce and the people drifted away. In the end these magnificent cities were abandoned.

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UXMAL Terminal Classic c850-925

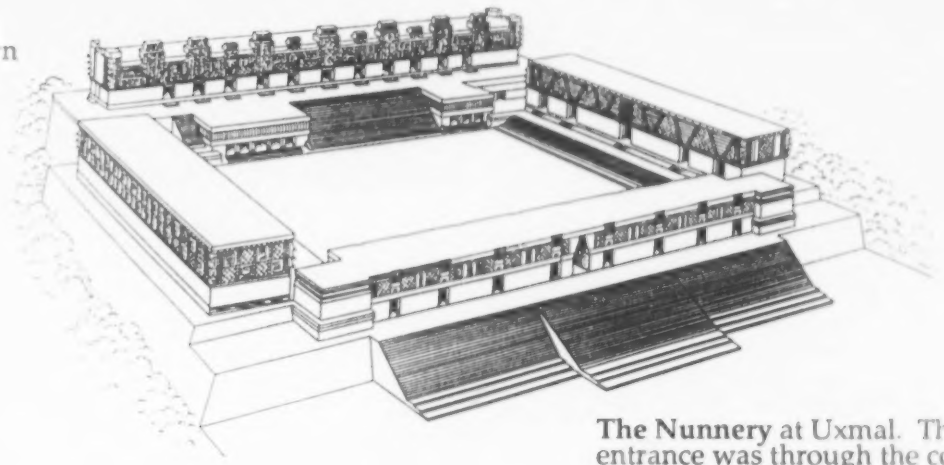
Lord Chac ruled Uxmal. He may be the figure shown here in Stela 14.

As the Classic Maya cities collapsed, Maya Puuc cities in the northwest Yucatan began to blossom. We call this period from 850 to 925 the Terminal Classic. Bottle-shaped cisterns called *chultuns*, caught the rain for drinking water and were often used to store food.

The largest of these Puuc cities was Uxmal. Below is the Nunnery, named later by the Spanish, which was probably a palace. Four separate rectangular buildings were built around an interior courtyard. The principal gateway was on the south side through a corbel arch.

The mosaics on the stone facades of the buildings copied in stucco and stone the thatched roofs of the houses of the nobles.

In time Uxmal and the Puuc cities became overpopulated and by the end of the 900s their power had declined and the people drifted away



The Nunnery at Uxmal. The entrance was through the corbel archway on the south side.

Research the bottle-shaped ***chulton cistern*** and ***draw it*** here.

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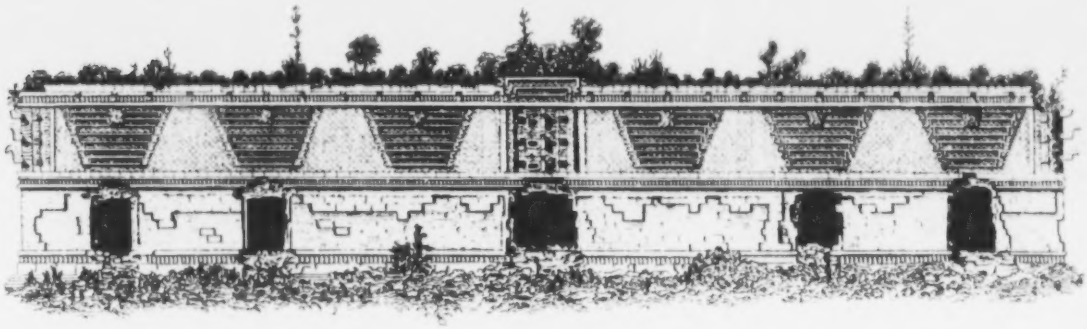
UXMAL Terminal Classic, c850-925

In the 1840s Catherwood created a lithograph of the east building of the Nunnery. He shows the details in the Puuc style.The surfaces are covered with thousands of thin squares of limestone and stucco that create patterns of step-fret latticework. On each of the corners you can see the long hooked noses of Chac, the God of Rain.

Long-nosed God Chac



Lithograph of the East Building of the Nunnery by Frederick Catherwood.

Using patterns from the two Catherwood lithographs create a design for an apartment building in a Puuc type style.

Not too far from Uxmal is Labna, connected by an ancient causeway. Frederick Catherwood created this lithograph of the **Archway at Labna,** also in the Puuc style.

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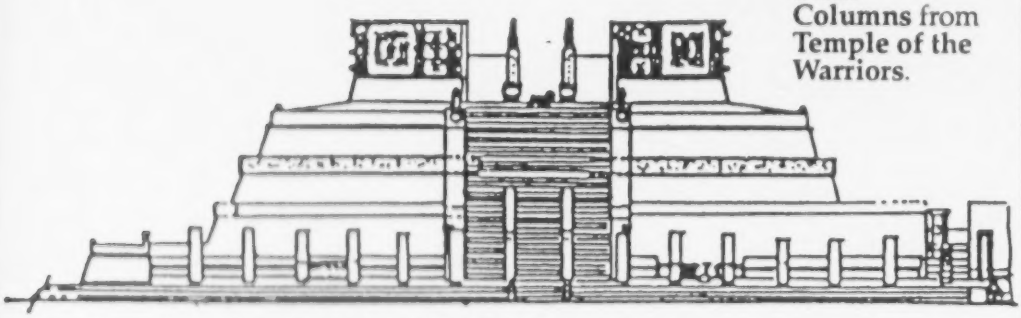
CHICHEN ITZA Post Classic c800-1224

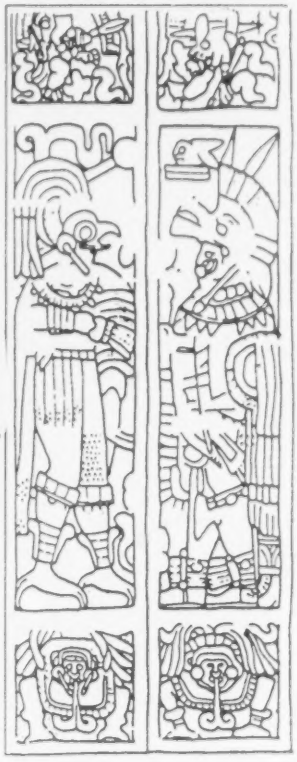
In the late 800's the Itza, a Maya speaking people living near Mexico moved into Chichen Itza in the Yucatan. The Itza brought with them the Mexican god, Quetzalcoatl, the Feathered Serpent, which they called Kukulkan. They also brought the Toltec belief in the sacrifice of human hearts. The name Chichen Itza means "The Opening of the Wells of the Itza." The wells were cenotes. A cenote is an underground sinkwell or cavern of water whose stone roof has collapsed inward. The Sacred Cenote at Chichen was believed to be the watery surface of the Otherworld.

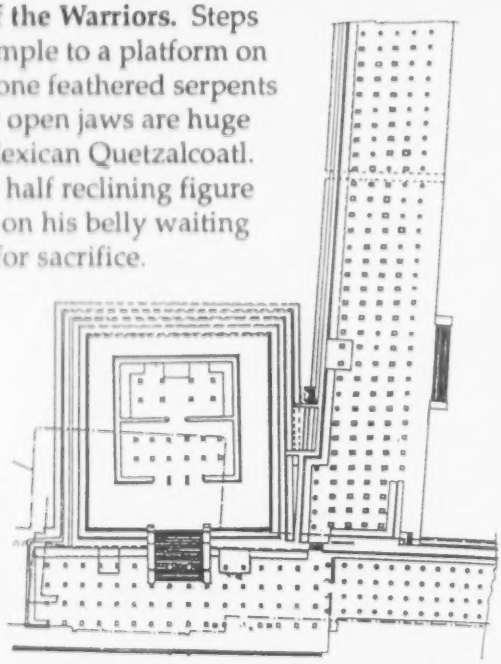
This Gold Disk was found at the bottom of the **Sacred Cenote**. Two Toltec warriors attack a pair of fleeing Maya. Hundreds of offerings were flung into the dark waters of the cenote, including some say, virgins, but more probably young children were sacrificed to beg the God Chac to bring rain.



Drawing of the **Temple of the Warriors.** Steps lead up the front of the temple to a platform on top where two gigantic stone feathered serpents guard the entrance. Their open jaws are huge They are Kukulcan, the Mexican Quetzalcoatl. At the top of the steps, the half reclining figure of Chacmool holds a dish on his belly waiting for freshly cut-out hearts for sacrifice.

Warriors standing on top of the Earth Monster, who supports them **Columns** from **Temple of the Warriors.**





Ground plan of the **Temple of the Warriors** showing the **Court of 1000 Columns** where there once may have been a market.

Using clay, **model a square column** and carve on each of its four sides a warrior standing on top of the Earth Monster.

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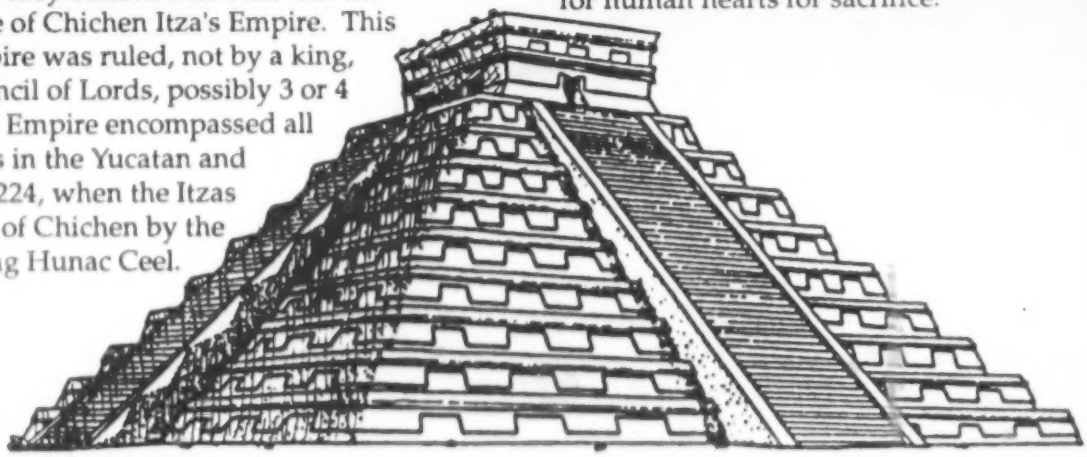
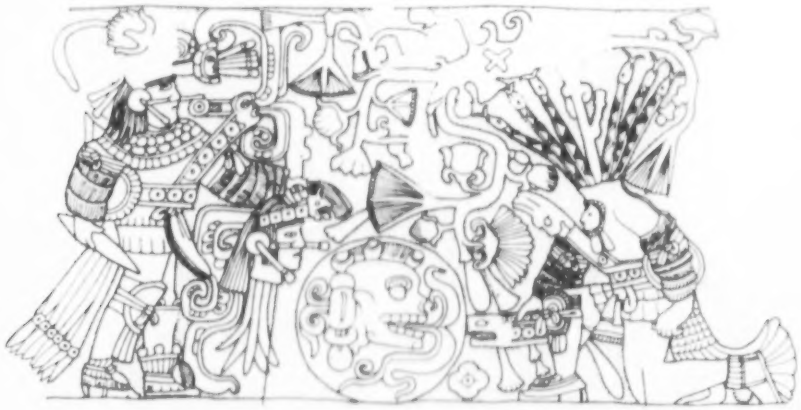
CHICHEN ITZA Post Classic, c800-1224

Until recently archeologists believed that the Toltecs had conquored Chichen Itza and that it was merely an outlying state of Tula in Mexico. Now they believe that Tula was the outlying state of Chichen Itza's Empire. This Chichen Empire was ruled, not by a king, but by a Council of Lords, possibly 3 or 4 brothers. The Empire encompassed all the kingdoms in the Yucatan and lasted until 1224, when the Itzas were run out of Chichen by the Mayapan King Hunac Ceel.

The Castillo, a Pyramid with a Temple built on top of an earlier one. Inside the Inner Temple is a red Jaguar Throne and a Chacmool, waiting for human hearts for sacrifice.

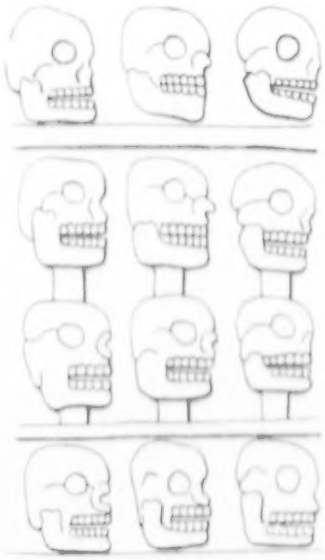


The ball court at Chichen Itza is the largest in Mesoamerica. The ball had to go through the stone ring high up on the wall. The Temple of the Jaguars, where the nobility sat, looms high above the ball court, while around the sides and ends, the spectators sat and cheered on the long rows of stone steps. Below in the **Relief from the Ball Court** the losing captain's head is cut off.



severed head

decapitated body with snakes as spurting blood



Near the ball court is the **Tzompantl,** the stone skull rack where skulls of sacrificial victims were hung to dry.

RESEARCH and DISCUSS:
How different was the government of Chichen Itza from the governments of Copan, Tikal, Palenque, Yaxchilan and Uxmal? What effect to you think this had on their survival and eventual collapse?

COLOR CODE:
In order to better see what is happening in the relief above, color in the background. (use any color)

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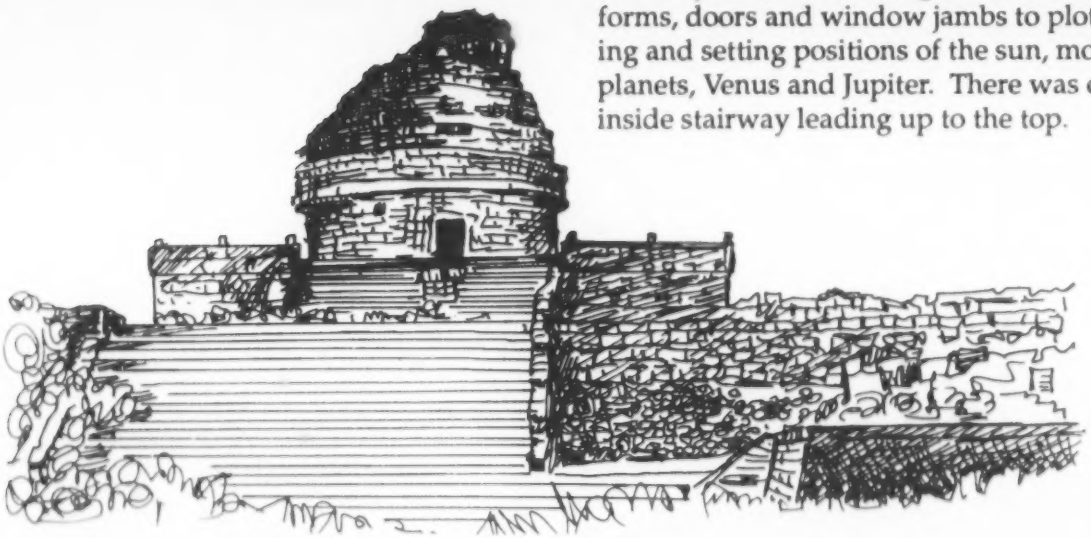
CHICHEN ITZA Post Classic c800-1224

In the older part of Chichen Itza is the Caracol, (snail) a circular observatory where Maya priests could follow the movements of stars and planets. The Maya used lines of sight taken from its platforms, doors and window jambs to plot the rising and setting positions of the sun, moon and planets, Venus and Jupiter. There was once an inside stairway leading up to the top.



The Caracol, the Observatory at Chichen Itza

QUIZ

1. As the kingdoms of Copan, Tikal, Yaxchilan and Palenque collapsed in the 800s, where did the Maya culture rise up again?_____
2. Which was the largest and most important of the Puuc cities?_____
3. What do archeologists believe the Nunnery was?_____
4. Frederick Catherwood made a lithograph at Labna, what was it?_____
5. Who were the Itzas and what did they believe in?_____
6. What does the name Chichen Itza mean?_____
7. At Chichen Itz there is a *cenote*. What is it and what was put in it?_____
8. Who was the most famous king of Chichen Itza?_____
9. What went on in the Ballcourt and how did it all end?_____
10. What was the purpose of the Caracol observatory?_____
11. Who was the god of the Temple of the Warriors and what sacrifices did he require?_____

MAYAPAN - THE LAST MAYA KINGDOM

Cortes Conquering Tenochtitlan

In 1224 Hunac Ceel, king of the Mayapan kingdom, conquered Chichen Itza and drove out the Itzas. They ruled the Chichen Empire until it collapsed in 1450.

The best preserved of these Mayapan cities is Tulum, on the Carribbean coast. Tulum thrived as a religious and trading center until the Spanish came. Canoes could safely land at the beach within its walls.

In 1511 a Spanish ship went aground and 20 sailors made their way to the Yucatan coast. All but two were sacrificed and eaten. One of the men who escaped joined Cortes on Cozumel Island in 1517 from whence they sailed north to conquer the Aztecs.

When the Spanish came back to conquer and convert the Maya to Christianity, the many small Maya kingdoms subbornly resisted. Not until 1697 did the last Maya kingdom, Tayasal (at today's Flores) in Lake Peten Itza, fall. Warfare, famine and epidemics of small pox decimated the Maya population and they were treated miserably by the Spanish.

Today, many of the 5 million Maya people still live in villages and farms. Many more live in the modern city of Merida. Farmers still slash and burn the trees and undergrowth on steep mountain slopes. They still plant by pushing kernals of corn into the ground with a stick, using up the precious land.

The kings are gone, but the Maya still create beautiful objects, pottery, fabrics and flowers. Many of them still believe in the Maya gods, in Xibalbâ, the Tree of Life and the Hero Twins.

RESEARCH:
Research the Maya, today, both in the Yucatan, Mexico and Guatemala. In your research, use the National Geographic story on Chamula or other periodicals, including any recent newspaper articles. Today, the Maya are rebelling against what they believe to be unfair governments both in Mexico and Guatemala.

The civilization of the Maya was extraordinary, their written language, their accurate system of dating, their knowledge of the stars, planets, sun and moon, their magnificent architecture, sculpture and painting. Each day archeologists are still making new discoveries bringing us new stories of kings and queens.

CONSTRUCT YOUR OWN ACTIVITIES AND QUIZ:
1. Using this workbook construct at least 2 activities that you think would embody the thinking and beliefs of the ancient Maya.
2. Using paper, paint, clay or papier mache create one figure that represents what you think a Maya king, queen, nobleperson, or farmer looked like.
3. Create your own quiz based on what you think is most important for someone else to know about both the ancient Maya and the Maya today.

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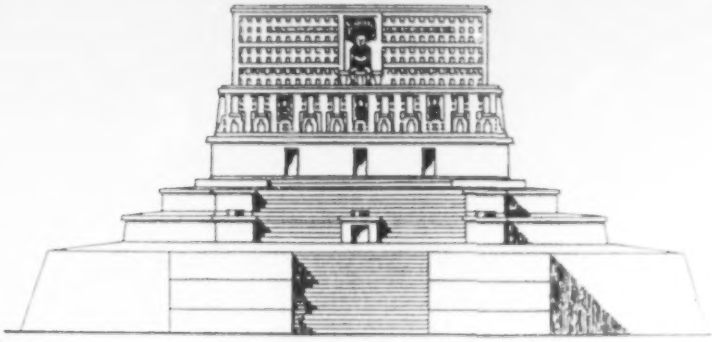
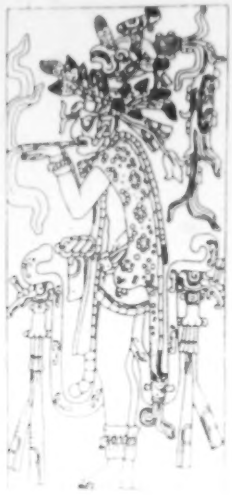
TEST YOUR SAVY

MARK THE CORRECT ANSWER





2 ☐ A. Reconstruction of Temple 33 at Yaxchilan
☐ B. Lincoln Memorial, Washington D.C.

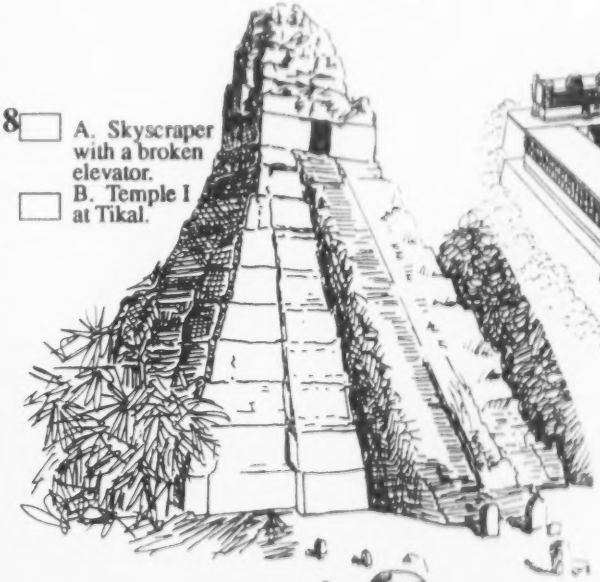
3 ☐ A. Garden Club Hat Contestant grabbing a smoke.
☐ B. God L, who ruled Xibalbá, smoking his cigar. from Palenque.

1 ☐ A. Roller blader carrying all her worldly possessions.
☐ B. Stone tetun of 18 Rabbit, the King of Copan,

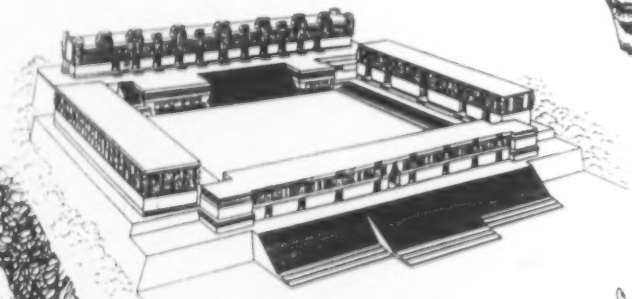
4 ☐ A. A Smiley face with 2 balls on its head
☐ B. Glyph for Yaxchilan

5 ☐ A. Siamese Twin bulldogs eating their master.
☐ B. Double-headed Sky Monster from Copan

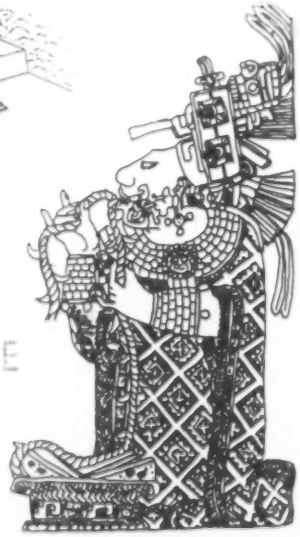
6 ☐ A. Pacal the Great from Palenque
☐ B. Preference by L'Oreal "And I'm worth it!"



8 ☐ A. Skyscraper with a broken elevator.
☐ B. Temple I at Tikal.



7 ☐ A. Olympic skating rink, Salt Lake City, 2002.
☐ B. The Nunnery at Uxmal



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10 ☐ A. Figures in mural from Room #2 at Bonampak.
☐ B. A day at the beach.

9 ☐ A. Lady Xoc letting blood by pulling a rope of thorns through her tongue
☐ B. Queen Elizabeth using dentil floss.

GLOSSARY

archeology - the study of the evidence of the remains of early human cultures.
atlantid - sculpture of a man used as a column to hold up a roof
atlatl - throwing stick with a spear attached
Bacab - a skybearer
baktun - 20 katuns or 144,000 days in the Maya Long count
bloodletting - drawing blood
ceiba tree - tall straight tree found at Tikal
Celestial Monster - double-headed sky creature possibly Milky Way
cenote - underground open well
Chac - Maya Rain God
chacmool - a semi-reclining figure in whose lap human hearts were placed during sacrifices
chultun - bottle shaped cistern
cistern - catch basin to store rain water
colonnade - connecting row of columns
copal - resin from trees used as incense
corbel arch or vault - formed by placing building blocks closer and closer together until they meet at the top
decapitated - beheaded
dugout canoe - canoe dug out of a huge tree
dynasty - descendents of a long family line
equinox - one of two points when the sun crosses the equator and days and nights are equal
fiesta - a festival
funerary crypt - a tomb
glyph - symbol of a letter, word or phonetic syllable
Hero Twins -Xbalanque and Hunahpu
Hieroglyphic Staircase - staircase covered with glyphs telling history of kings
Hunahpu - Hero Twin
Hun Hunahpu - father of the Hero Twins who became the Maize God
katun - 20 tuns or 72000 days in the Maya Long Count
Kukulkan - Maya name for Mexican god, Quetzalcoatl
lithograph - method of printing by drawing with grease pencil onto a stone
Long Count - Maya way of counting years
Lords of Death - Gods of the Underworld, Xibalba
Middle World - human world
Maize God - Hun Hunahpu, father of the Hero Twins
kin - one day in the Maya Long Count
palma - chest protector in ball game
Pawahtun -Bacabs - 4 sky bearers who held up the four corners of the sky
Popol Vuh - Bible of Quiche Maya who lived in Guatemala Highlands
regent - someone who rules for under-age heir to the throne
relief sculptures - Drawings carved into stone
Ritual Calendar - 260 Named-day Calendar
roofcomb - corbel arches and vaults on top of Maya Temple
sanctuary - sanctified room inside a temple
Solar Calendar - 365 day calendar or Vague Year Calendar
stucco - white coating on temples or pyramids made from limestone heated to very high temperatures.
tablero - vertical part of construction in talud/tablero
talud - slanting part of construction in talud/tablero
tetun - tree stone
Tree of Life - same as World Tree
tun -18 uinals or 360 days in the Long Count
tzompantl - skull rack
uinal - 20 kins or 20 days in the Long Count
Vacub Caquix - Monstrous Diety, Sun of the 3rd Creation
Vacub Hunahpu - Uncle of the Hero Twins
Vague Year Calendar- same as 365 Day Solar Calendar
Vision Serpent - Ancestors called up from Xibalba during bloodletting
Witz Monster - Entrance to Underworld
World Tree - branches in starry arch of heaven, trunk in Middle World, roots in Xibalba
Xbalanque - Hero Twin
Xibalba - underworld

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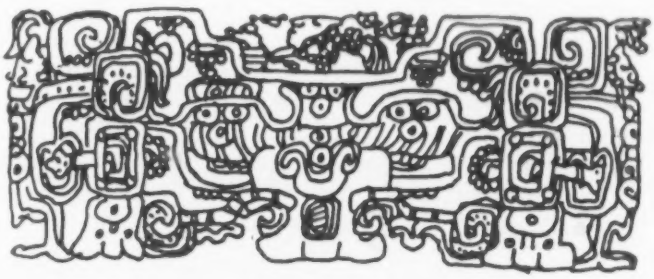
We wish to acknowledge and thank the authors of these books for their incredible scholarship not only in deciphering the Maya glyphs but in their interpretation and understanding of the history of the Maya.

Witz Monster, a "living mountain" from Bonampak



The MAYA SYLLABIC CHART • MAYA GLYPHS and HOW to WRITE THEM

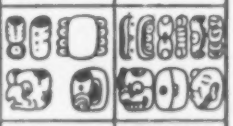
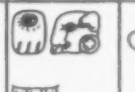
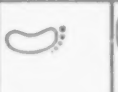
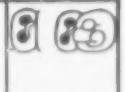
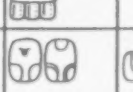
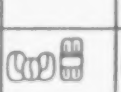
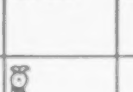
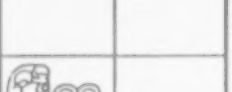
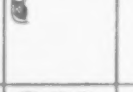
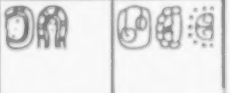
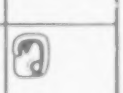
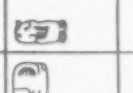
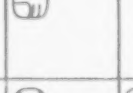
In Maya writing, words could be spelled with signs (glyphs) called *logograms*, representing individual sounds, as well as signs representing whole words.

Often the same sound is represented by more than one sign. **In this Maya Syllabic Chart each box** (except for the top row of boxes on the left) **contains one or more signs representing a consonant-vowel (CV) syllable. The consonants are at the left, while the vowels are at the top.** For example, all signs in the top right box would be pronounced *nu*.

A Maya scribe would have written the word *pitz*, "to play ball." with the signs for *pi* and

for *tzi*

combined thus:

	a	e	i	o	u
					
b					
ch					
ch'					
h					
c					
k					
l					
m					

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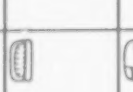
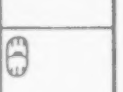
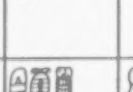
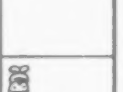
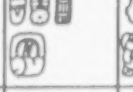
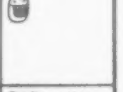
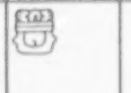
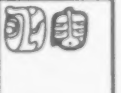
s					
t					
tz					
dz					
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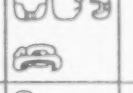
y					

We wish to thank Michael D. Coe for allowing us to use his Syllabic Chart from Appendix B, in his book, BREAKING THE MAYA CODE, published by Thames and Hudson, New York, 1992.